

## **INFORMATION NEEDS FOR CONSUMER CHOICE**

### **Final Report**

Research Triangle Institute

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## **Chapter I: Introduction**

### **1.1 Overview**

Efforts to examine consumers' preferences regarding what information they consider important for decision making purposes, and how they want that information presented are proliferating rapidly. The underlying assumption is that consumers will use this information to make more informed and appropriate choices among the health plans available to them, leading to improved quality and cost containment (U.S. General Accounting Office, 1995; Schnaier et al., 1995). Previous research indicates that while consumers want comparative information on plan characteristics, including data on quality of care (Agency for Health Care Policy and Research, 1995; National Committee on Quality Assurance, 1995), they may conceptualize quality of care in ways that differ markedly from traditional approaches used by differently large scale purchasers and the research community. For example, consumers are more likely to define quality of care in terms of the interpersonal relationship with their provider: rather than the clinical processes and outcomes of care (Mechanic, 1989). Furthermore, consumers may fail to understand key aspects of the indicators provided (Hibbard and Jewett, 1996).

The primary purposes of our research were to: (1) identify consumer information needs and preferences for choosing and using health plans and (2) develop and test prototype materials providing information to meet these empirically determined needs and preferences. We collected data from Medicaid beneficiaries, Medicare beneficiaries, and the general population under 65 years of age. However, informational materials were developed for only the Medicaid and Medicare populations. Empirical data collection strategies to determine consumers' information needs and preferences included focus groups and case study analysis. Once developed, materials were subjected to cognitive testing methodology and revised based on the test results.

### **1.2 Report Format**

The research involved four distinct, sequential steps:

- Determine the information needs and preferences consumers have for choosing among, and using, health plans.
- Develop prototype materials targeting those information needs.
- Empirically test the prototype materials in terms of their effectiveness for communicating information to consumers and enhancing decision making.
- Revise the prototype materials to make them more useful and comprehensible to the targeted consumer groups based on the results from consumer testing.

The remainder of this report is organized according to these sequential steps, which were conducted between October 1994 and October 1997. We begin with a summary of the methodology and results of our focus group and case study research used to determine consumer preferences and information needs and to learn about consumer materials being developed across the country. We then briefly describe the decision process leading to the materials development. Next we describe our cognitive testing approach and the findings from this research as well as how the materials were modified in response. We conclude with a presentation of the final set of materials which are appended.

## **Chapter 2: Determining Consumers' Information Needs and Preferences**

### **2.1 Chapter Overview**

Three different types of activities were used to assess what consumers want to know and how they prefer to receive information: (1) a literature review, (2) focus groups, and (3) case studies. A comprehensive literature review (Schnaier, McCormack, Burrus et al., 1994) was conducted to assess the availability of relevant written documentation. Because of the ongoing expansion of unpublished information that coincided with the start of this project, we used case studies of communities actively engaged in the use of report cards to collect additional information. We also conducted focus groups to determine preferences from the consumer's perspective. In this chapter we describe the methodology and results of our focus group research followed by a summary of our case study analysis.

### **2.2 Focus Group Methodology and Findings**

The purpose of the focus groups was to identify the factors consumers considered important when choosing a health plan. We also explored several factors that limit consumers' acceptance of, understanding of, and willingness to use performance measures.<sup>1</sup>

#### **2.2.1 Overview of Focus Group Methodology**

Focus groups have been used increasingly in social science research as a qualitative method of gathering information on people's opinions in greater detail than is typically available through survey techniques, with some economies of both time and resources. A focus group discussion is led by a trained moderator with approximately 8 to 12 persons participating (Burrus et al., 1992). The group interaction within the focus group is designed to simulate naturally occurring discussions on a topic with the exchange among group members evoking ideas and reactions that might not have been considered in an individual interview. Systematic analysis reveals key "themes" that reflect a synthesis of the opinions expressed across groups and types of individuals for the topic of interest.

Despite all the advantages of focus groups, those reviewing the results should keep certain caveats in mind. First, as with other data collection methods, selection bias is a threat to validity if there is any systematic bias created by either participant recruitment strategies or the type of individual who agrees to participate. Even if focus group participants are recruited randomly, the extent of participation bias is difficult to assess and limits researchers' ability to extrapolate or generalize results to broader

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<sup>1</sup> For more detailed information on the focus group methodology and results, please see Gibbs, Sangl, and Burrus, 1997 and Gibbs, 1996.

populations. The group format means that participation bias may also be a threat if discussions are dominated by persons representing particular viewpoints. Moreover, the highly interactive setting increases the possibility of bias if individuals feel inclined to offer what are perceived to be socially desirable responses or if there is a generalized inhibition about discussing certain topics. Furthermore, because focus groups are so strongly influenced by the dynamics of the group, the "group," rather than the individuals within the group, is the most appropriate unit of analysis. The typically small study population (in this case, 22 groups) means that focus group studies are generally inappropriate for identifying differences among subpopulations although "trends" may be suggested. Although using a skilled and culturally sensitive moderator, conducting multiple groups, as well as using systematic analytic strategies, can help mitigate these problems, the above caveats should be kept in mind when reviewing the analysis and interpretation of focus group data.

## **2.2.2 Focus Group Methodology**

Three insurance populations (Medicare, Medicaid, and privately insured individuals under 55 years of age) were included in the study for a total of 22 focus groups at 8 different locations, as shown in Table 1. Within each insurance population, we recruited white, African-American, and Hispanic participants, as well as persons with and without chronic illnesses. To increase within-group homogeneity and topic salience, we specified that participants would be middle income (defined as within one quartile of the median income for their city or, for rural sites, county). Second, we limited participation to persons who had had the opportunity to make a choice among plans either by new enrollment or reenrollment within the past 2 years. For privately insured consumers, this meant that participants must have had more than one health plan to choose from through employment or individual purchase. For Medicare beneficiaries, we included only persons who had purchased a Medicare supplement, enrolled in a Medicare Health Maintenance Organization (HMO), or given serious consideration to changing plans within the past two years. For Medicaid enrollees, groups were held in States where enrollees are formally offered the chance to change their health plan annually and are able to initiate procedures to change plans at any time. Third, we increased the likelihood of insurance coverage being a highly salient issue within our privately insured groups by screening to ensure that participants had at least one child living at home and/or had a family member with a chronic physical condition, thereby increasing the likelihood of encounters with the health care system and familiarity of health insurance issues. Fourth, all Medicare beneficiary and privately insured focus groups were held in sites with moderate managed care penetration, so that participants would be able to discuss their own considerations and experiences in assessing managed care plans and deciding among managed care and fee-for-service (FFS) options. Both States had mature managed care plans programs where startup issues had already been addressed. Finally, our group configuration, site selection, and recruiting/screening strategies were planned to include residents of major metropolitan areas, smaller cities in different geographic regions, racial and ethnic minorities. Each type of population was interviewed in at least two different geographic sites (except in two instances) to minimize potential regional bias. We attempted to



represent new Medicare beneficiaries by including two groups of persons 63 or 64 years of age at the time the groups met.

The moderator guides were similar for each population to maximize comparability across groups, although the guides were tailored to take into consideration the unique features of each population's insurance situation. Moderators with substantive expertise in health care issues as well as extensive experience in focus group methods led each of the groups. To assist the moderator, a second team member—also with both substantive and methodological expertise—served as the notetaker and logistic support person for each group. With participants' permission, all groups were audio taped. We did not use videotape to minimize reluctance on the part of participants to speak openly.

The protocol focused on the following issues:

- Dimensions of the health plans most important to consumers in choosing a plan
- Decision processes and stages for plan selection and information required
- Comparative information used for making choices, examination of sample presentations of consumer satisfaction ratings and clinical performance measures, and discussions of whether these would be useful for plan selection
- Credible information sources
- Problems encountered in using health plans and the kinds of information needed to resolve them.

Following transcription of all audio-taped groups, project staff coded text segments of content area, speaker characteristics, and group parameters. A text-oriented database software package (AskSam) was then used to sort coded data segments for review, allowing us to examine all of the statements on a given topic (e.g., physician choice) and to compare statements systematically according to participant characteristics (e.g., presence or absence of chronic condition in the household).

Emerging themes were identified and subjected to further coding and review. Codes were reviewed to check reliability across raters.

### **2.2.3 Focus Group Findings**

#### ***Choice Process and Information Needs***

Most participants described the health insurance decision making process as frustrating and difficult. Medicare beneficiaries apparently experienced a heightened awareness of the seriousness of the process due to concerns about their own or their contemporaries' increasing physical limitations; and in some cases they had concerns

about their own decreasing cognitive abilities. Others spoke of feeling poorly equipped to negotiate the health plan decision process formerly handled by a spouse or employer. Perhaps because of this increased perception of the vulnerability in their health status, we did not detect any identifiable differences between Medicare beneficiaries with chronic disease and those without.

Concern and understanding regarding impending coverage decisions was very low among those who had not yet reached age 65 or had a spouse reach that age. Once age 65 had been reached, however, Medicare beneficiaries demonstrated a keen interest in learning more about their choice options, although many expressed frustration at the lack of information available to help guide their decision making.

Beyond the basic health plan features of benefits, premium costs, and the amount of paperwork required, Medicare beneficiaries identified several other plan characteristics of interest. Access to specific providers (e.g., "Can I keep my current doctor") was mentioned most frequently. Although the beneficiaries described provider choice in terms of the ability to see a doctor who knew their health history, their comments clearly indicated the relationship also represented an established trust in the quality of care provided and an interpersonal bond. Although the desire to continue seeing the same primary care physician was the main concern in this area, beneficiaries also mentioned access to specific hospitals or specialists.

Convenience of location was the single-most frequently mentioned factor by Medicaid recipients (most likely due to the fact many depend on public transportation for both routine and urgent care). While recipients had strong feelings about other aspects of care, their choices often were constrained by transportation needs. Like Medicare beneficiaries, Medicaid enrollees also cited the ability to see the doctor of one's choice as an important factor in the decision process, especially for those with chronic diseases in the family. They also described waiting time for both routine and urgent care as important considerations.

Compared with Medicare beneficiaries and Medicaid enrollees, privately insured consumers typically have fewer health plan choices (Institute of Medicine, 1996). Privately insured participants with chronic diseases were acutely aware of both their requirements for coverage and the restrictions placed on their choices by employers.

"It would be beneficial in a lot of ways to choose another plan to meet the rest of the family's needs, but we always have to make sure my daughter gets what she needs. And, so I really feel trapped a lot of times."

In addition, privately insured consumers with chronic diseases in their family were more interested in the details of benefits and coverage than were any other group. Although price was generally more salient for privately insured consumers, choice of a physician remained a key concern, even for those without chronic diseases to consider. Provider choice for participants with chronic disease was defined primarily in terms of access to specialist care.

### ***Response to Consumer Satisfaction Ratings***

Two samples of health plan report cards were provided to each focus group, beginning with a simple presentation that showed scores for four competing (fictitious) health plans in six major categories: communication, after-hours/urgent care, choice of doctors, technical quality, waiting times, and customer service. Across all groups, and especially in the Medicaid group, we found that some participants needed explanations about how the consumer survey (theoretically used to collect the performance data information) was conducted. Some participants wanted detailed information about the survey administration, such as how many people completed the survey, who the respondents were, and whether the survey was performed by a neutral party.

"Who were these people—5 people employed by the insurance company?"

Typically, participants generally focused on the performance measures most relevant to their personal or family priorities—often focusing on these measures to the exclusion of the others. In several groups (especially among Medicaid enrollees), participants spontaneously reported they would prefer to hear the opinions of an *individual* plan member rather than examining aggregated consumer data. In response to probing from the moderator, they agreed that any particular person's responses might present a biased perspective and proposed instead that several people be assembled to relate their experiences, either as a panel or video presentation. While acknowledging that such spokespersons might not be sincere, they felt more confident in their ability to assess the truthfulness of individuals in a face-to-face situation rather than to evaluate numerical ratings on paper.

### ***Response to Clinical Performance Measures***

We also asked participants to review a sample presentation of clinical performance (e.g., HEDIS) measures. Reactions to this piece were sharply divided. Across all insurance groups, the majority of participants considered compliance with recommended preventive care measures to be the consumer's responsibility and therefore not reflective of the quality of care delivered by the plan. Comments such as

"If you're a good parent, you're going to remember to get your kids shots."

were typical. Medicare beneficiaries, in particular, seemed to assume that periodic screenings would be offered by their physician or that they would receive them if requested. They did not see service monitoring as a plan responsibility.

For ratings of both technical quality of care and consumer satisfaction, some participants expressed concerns over interpretation of the numerical ratings. Although the performance measure scores were carefully selected to reflect realistic plan differences, participants questioned both the generally high satisfaction scores

"If they're all around 80% or 90%, I probably wouldn't pay a whole lot of attention to it."

as well as to small variations among plans.

"When it comes to your health, even small differences are important."

Some participants did not infer the expected causal connections between activities of the health plan and members' health outcomes. Variations among plans in rates of primary care utilization or low birth weight babies, for example, were interpreted as differences in the population covered by the plan, rather than as plan variation. In addition, some performance measures intended to be positive were interpreted as negative. For example, Medicare beneficiaries expressed concerns that a plan with lower hospitalizations for pneumonia was undertreating its patients who should have been hospitalized. A Medicaid enrollee believed that a low cesarean section rate meant that the plan was denying women the aggressive care they needed. The respondents perceived low rates as signals that they might encounter barriers to needed care. Given the financial incentive health plans have to discourage utilization, this finding suggests that utilization-based measures of performance in which lower rates are considered to reflect higher quality should be excluded from report cards. If they are included, they should be used together with satisfaction measures.

We found that a general lack of understanding of how a health plan might influence member behavior to be a barrier to effective communication. Medicaid enrollees strongly believed individuals should be responsible for complying with recommended screenings and parents should be responsible for keeping their children's care up to date. Medicare beneficiaries typically expressed bewilderment that anyone would fail to take advantage of covered preventive services. Many Medicare beneficiaries and Medicaid enrollees also did not recognize a plan's potential for modifying physician behavior. Responsibility for the process of care was almost exclusively attributed to the individual physician although negative experiences were frequently seen as reflective of the plan, particularly if more than one physician was involved. Similarly, difficulties in accessing care were likely to be blamed on the plan, while ready access was often attributed to the physician's willingness to extend special considerations on behalf of the patient. Many Medicaid enrollees as well as some Medicare beneficiaries typically selected and rejected performance measures based on their specific needs, rather than inferring a more generalized pattern of care such indicators are meant to represent.

### ***Response to Cost Profiles***

To explore the potential usefulness of expanding cost information beyond standard comparisons of premiums, deductibles, and copayments, we asked participants whether presentation of average costs per year for "typical" patients, or for patients with various chronic conditions, would be of interest. Participants quickly pointed out that a typical consumer was unlikely to exist although a few were interested in the idea of seeing how costs would compare under different plans. Participants with

chronic diseases were least likely to be interested in this sort of example. They were more likely to have examined their plan's structure and their own projections for their future costs in detail and did not expect that any example could represent the unique features of their particular circumstances. Some Medicare beneficiaries had developed elaborate worksheets with which to itemize anticipated utilization of various services and to compare resulting costs under the plans available to them.

### ***Information Sources***

All types of participants overwhelmingly preferred impartial information sources, although variations existed among participants' concepts of who would be the most trustworthy and informed source. Information from relatives and friends was seen as highly credible and useful and often was preferred over published information. Opinions were mixed on the credibility of government agencies, particularly among minority participants. Programs sponsored by state and Federal government, such as the Medicare Information, Counseling, and Assistance Programs (ICAs), were spontaneously named as trustworthy sources, but the Federal government was viewed with caution.

Most felt that insurance plan representatives were not trustworthy resources and expressed skepticism of information prepared by insurers.

"If you have somebody from the plan, they're just lining their own wallets"

"I think ...they pad these things to make themselves look good."

This distrust extended to the American Association of Retired Persons (AARP), which was suspect as an information resource because of the organization's involvement in marketing Medicare supplemental insurance. The magazine, *Consumer Reports*, published by Consumers Union, was frequently cited as a credible and useful resource.

### ***Problems in Using Health Plans***

Difficulties in using health plans were articulated by many of the participants. Problems cited most often included denial of payment for emergency room care and long waits for service (Medicaid enrollees) and limited access to specialists (Medicare beneficiaries and chronically ill participants). Although many had been successful in resolving their difficulties, they also expressed feelings of powerlessness, particularly for recurrent problems.

"I have to fight for every single thing."

Participants tended to view these difficulties as isolated problematic interactions with a provider or plan. Few expressed any concept of consumer's rights or knowledge of established procedures for problem resolution.

## **2.2.4 Focus Group Conclusions**

### ***Information Needs***

Our focus groups clearly indicated a desire on the part of consumers across all insurance groups for more information to assist them with plan choice. There were general patterns within groups as to particular areas of interest. Medicare beneficiaries wanted to know whether they would have continued access to their current provider and to specialist care, and how much protection from financial risk the plan offers. Pre-Medicare beneficiaries were eager for basic information to help guide their decisions regarding ways to supplement Medicare coverage. Medicaid enrollees wanted to make certain they would be able to access needed care and assurances they would be treated with respect.

Our findings suggested that some current beneficiaries, and many approaching Medicare eligibility, are confused by the complex financial structure of the available coverage options. Given the complexity of Medicare payment system in combination with various fee-for-service and managed care plan options, presentations that clearly outline beneficiaries' choices and explain the benefits and limitations of each would be useful for addressing this perceived information shortfall.

### ***Performance Measures***

Although participants indicated only a limited interest in performance measures, we believe much of this hesitation stemmed from a lack of familiarity and appreciation of what these measures offer and their appropriate usage. Basic explanations of what these measures represent and how they are compiled would be necessary if consumers are to understand and use them. The relationship between performance measures and the processes and outcomes of care needs to be made explicit. Although use of nontechnical terminology is a good starting point, most audiences will likely require explanations of why a measure represents a desirable or undesirable event and examples of how to interpret relative scores. The interest of Medicaid enrollees in hearing the experience of individuals rather than relying on data suggests that first-person quotes, in-person presentations, or use of videos with "peer" actors could be effective for framing performance measure presentations for consumers who are less quantitatively oriented. The information should also assist users in interpreting the relationship between the performance measures and the health plans policies and practices. Without examples to clarify the plan's role in shaping care delivery, consumers may attribute events exclusively to physicians and patients.

The measures presented should be customized to the health priorities of the insurance group. For example, seniors saw indicators such as mammography rates and cholesterol screenings as being particularly relevant to their care, but families with young children were more interested in the use of prenatal care and immunizations.

Descriptions of methodology should demonstrate that the data are collected impartially and that the results are valid. Some, although not all, consumers will want

the details of consumer survey administration, such as sample size and selection methods, response rate, who administered the instrument, and who analyzed or audited the results. Consumers are unlikely to accept or use information they perceive to be biased. In addition, consumers want assurances that the data collection process was fair and uniform. Without evidence of standardization, they are likely to interpret the data as including only the positive results or information that places the plans in a favorable light.

Consumers' difficulties in understanding the values associated with ratings is also a barrier that must be overcome. The focus groups suggested that, even if issues of statistical significance are not directly addressed, consumers make their own assessments of how much variation in ratings across plans is meaningful. Participants were most enthusiastic about performance measures that allowed them to identify plans that were clearly outstanding or inferior. While statistical significance of differences among plans is important for policy reasons, it may be difficult for consumers to understand because, with large enough samples, small differences may be statistically significant but may not have practical significance for consumers.

### ***Media Preferences***

Responses showed a clear pattern of media preferences. For Medicare beneficiaries, the overwhelming choice was a group presentation, supplemented by printed materials. Our findings showed little inclination toward the use of new information technologies among current Medicare beneficiaries, although these will likely become more attractive as people more experienced with computers and video technologies become eligible for Medicare. Further, the Medicare beneficiaries also indicated a clear preference for having written materials that they can use on their own, refer back to, and work through at their own pace as needed.

Medicaid enrollees indicated general dissatisfaction with group presentations that were in use at the time of the focus groups, although this may be more driven by a lack of substantive information to guide presentation than by the presentation media. Enrollees indicated a preference for receiving written materials to review privately and follow-up with questions before making a choice. Most indicated they would make use of a telephone hotline as an adjunct to the written or personal presentations.

Participants consistently preferred receiving information from an impartial source. The most trustworthy sources appear to be a state government agency, independent research firm, or consumer advocacy group. Medicaid enrollees repeatedly expressed an interest in hearing information from persons like themselves. Using enrollees as spokespersons in a video or as counselors was a suggested approach to increasing credibility.

Since consumers' interest in documentation varies even within insurance groups, information would ideally be presented in a "layered" fashion, structured to allow users to choose their desired level of simplicity or detail. Basic definitions could be presented



in the body of the report with more detailed explanations available for those seeking more detailed explanations.

## **2.3 Case Study Research**

### **2.3.1 Case Study Methodology**

The case study component of our research was designed to gather data about and from organizations throughout the country that were developing informational materials to assist consumers in choosing a health plan and in using the health care system. It provided an opportunity to identify the methods organizations use to transmit information to health care consumers, the process by which they determine consumer information needs, and the effectiveness of their approaches. In-person interviews were conducted with employers, health maintenance organizations (HMOs), health care purchasing cooperatives and coalitions, national magazines, insurance counseling programs, an accreditation body, a hospital, one federal agency, and several State agencies. Case study participants were selected from communities with active managed care markets, in which several organizations were providing consumer choice materials to at least one of our three target populations. The five case study communities were:

- Sacramento and San Francisco/Oakland, California;
- Minneapolis/St. Paul, Minnesota;
- Cleveland, Ohio;
- New York City, New York/Stamford, Connecticut; and
- Washington, DC.

A total of 24 organizations were interviewed.

Through the case studies, we identified a list of candidate performance measures for inclusion in our prototype materials and a list of potential formats/modes of communication for materials design. To evaluate the different types of performance measures found in the numerous materials we encountered, measures were classified into three broad categories: (1) structural measures, (2) survey-based measures, and (3) administrative records-based measures. Structural measures included those that characterize basic health plan features such as the benefits, premiums, provider networks, and operations of health plans. Survey-based measures reflect feedback from consumers who are already enrolled in the plan, their experiences and level of satisfaction. The survey-based measures were organized in six categories:

- Access to Care,
- Communication/Interpersonal Skills,
- Experience with the Physician/Hospital,



- Quality of Care,
- Preventive Services, and
- Experience with the Plan.

Our third category, records-based measures, are derived from administrative data bases such as automated medical records, claims, encounter data, and accounting data about services delivered by the health plan. We categorized administrative performance measures into four groups:

- Screening/Preventive Care,
- Utilization,
- Outcomes, and
- Administrative/Financial Management.

### **2.3.2 Case Study Findings**

In reviewing the case study findings, the reader should keep in mind that the case studies were conducted in the spring of 1995 and represent a historical documentation of the state-of-the-art at that point in time. Substantial progress has been made in the materials development arena since that time. With this caveat in mind, we present the general findings from our case study data collection efforts which guided our materials development process.<sup>2</sup>

Overall, structural data elements and in particular, premium amounts and benefits coverage, were the most common type of information included in the consumer materials that we reviewed. This is also the most basic type of information, distribution of which is essentially universal among health plans and purchasing organizations. Survey-based measures differ from structural and administrative records-based measures in that they are based on subjective impressions of individuals' health care experiences and expectations and may reflect the "values" that individuals place on the components of the health care experience. Among the 24 organizations that we interviewed, about one-half had completed development of materials that included performance measures from member surveys. Of organizations that used survey-based measures, a majority reported six or fewer measures. Performance reports that were designed for corporate purchasers generally used more measures than those designed especially for individual consumers. The most commonly used survey-based measures were:

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<sup>2</sup> For more detailed information on the case studies, see McCormack, Schnaier, Garfinkel et al., 1996. "Consumer Information Development & Use." (Fall, 1996). *Health Care Financing Review*, 1996, Vol. 18, No. 1.

- overall satisfaction with health care
- overall satisfaction with the insurance plan or HMO
- satisfaction with the range of services covered
- overall satisfaction with the doctor or health care provider.

In several cases, these measures were composites of several other measures, collapsed to create an overall rating to decrease the total number of measures and enhance consumer usage.

About half of the organizations developed consumer materials containing administrative records-based performance measures. Measures reflecting preventive health screenings were the most common type used. For example, nine organizations presented data on the percent of women who received a mammogram and a Pap smear (at the appropriate intervals). Health Plan Employer Data Information Set (HEDIS) measures were prevalent among both the screening and utilization measures found in the materials we reviewed. Seven organizations used at least one outcome measure; low birth weight rates were the most common outcome measure found in the materials.

The case studies were also designed to identify the most common media and layout of materials used to present health care choice information to consumers. The printed "report card" was the most common format encountered; most included a combination of text and graphics. Graphics took the form of bar charts, icon figures, and circles with various proportions shaded but the dominant model used text with percentages reflecting rating scores in tabular format. Most organizations agreed with the need for simple, straightforward information presented in both text and pictorial format. They also recognized that no single approach was appropriate for all audiences. Only one organization used interactive computer software to provide information. Live group presentations were used with the Medicaid population in California. Although a few organizations used focus group findings to guide development of their materials, most simply relied upon their professional judgment. Material format was largely still under development at the time of most site visits.

We also explored the extent to which the materials developers (1) conducted scientific assessments of consumer information needs and (2) evaluated their materials. We found little systematic investigation of either issue. A majority of the organizations that we interviewed based their perceptions of consumer information needs for choosing a health plan on personal and organizational experience. When research was conducted to determine consumer needs, it was primarily through focus groups. Further, materials developed by the case study organizations had not undergone rigorous evaluations; most had not been evaluated at all. Several organizations were planning to evaluate their materials, with focus groups being the primary method for these anticipated evaluations.

We learned several lessons by conducting the case studies that were important for guiding the development of the prototype materials. First, most beneficiaries were fairly unfamiliar with health plan performance measures and their meanings, suggesting that performance reports should be kept simple in the initial stages of use. Beneficiaries' limited experience with performance reports also implies that the presentation of data must be accompanied by simple explanations of the meaning, interpretation, and importance of the data.

The level of detail beneficiaries can understand and make use of varies considerably within any population. Thus, "layering" information—which involves presenting the same information in two or three different ways, each with progressively more detail—may be most appropriate in determining how much information to provide. In comparing the use of performance measures across organizations, we discovered no consistent pattern that clearly pointed to a set of measures for inclusion in the materials. Not only do the reported measures themselves vary, but composite measures that appear similar in name often represent different underlying dimensions. We decided that it would be best to include all three types of measures: structural, survey-based, and statistical measures derived from the administrative databases in our prototype materials were to reflect the extant materials at the case study sites. Our case study also suggested printed materials were a logical starting point for communicating choice information although other media warranted exploration. We also confirmed the importance of cognitive testing for the materials we developed, regardless of content or format. Through cognitive testing, consumers would define for themselves how well they are able to understand and use the materials. Our case study results suggested materials tested through rigorous empirical research would present a novel and innovative contribution to the knowledge of consumer usage of materials.

## **Chapter 3: Materials Development**

### **3.1 Decisions About the Kinds of Prototypes for Development**

The next stage of the project was to develop recommendations for the kinds of prototype materials to be developed. In making our decisions, we carefully reviewed the focus group and case study findings in terms of implications for materials development. We also presented our results to our Technical Advisory Panel (listed in the Acknowledgments Section) to obtain their recommendations for prototype development in light of our findings. We considered other factors such as cost implications, replicability, and feasibility in determining the media format, the target audience, and the type of information to present. After careful consideration of this extensive input, we selected three types of prototype materials to develop:

- Videos describing health plan performance measures and how they can be used by Medicare beneficiaries and Medicaid enrollees when choosing a health plan.
- Handbooks designed to explain HMOs to Medicare beneficiaries and Medicaid enrollees.
- A handbook with worksheets that includes a step-by-step process designed to help persons about to become age 65 explore options to fill in the gaps in Medicare and select the health plan best suited to their needs.

#### **3.1.1 Medicare and Medicaid Videos on Performance Measures**

Because consumers indicated a preference for “someone like me” to present the information, we decided a video would be the best format for addressing this preference. The video format is less expensive and easier to use logistically than a group presentation, yet through it, the feeling of having one’s peers discussing the issues can be captured. Because of the importance of tailoring the information (i.e., using performance measures that are relevant) as well as including people “like” the viewer, we determined separate videos would be needed for the Medicare and Medicaid populations.

Consumers clearly indicated a desire for more information to help inform their decision processes, but showed only limited interest in performance measures. Thus, we decided to draw an analogy between performance measures and every day purchase decisions. By doing this, we incorporated the concept of trade-offs between quality and other factors such as cost. This helped to ground the decision in terms that were familiar to the consumers, helping them take the cognitive step from familiar purchases in which they consider quality, to choices about health plans, where choice based on quality was less familiar.

Finding an appropriate comparative purchase decision for the Medicaid population was difficult, however, in that the major purchases (e.g., automobiles) by this population are typically more constrained by limited financial resources than for non-Medicaid populations. After much deliberation, we decided to use the scenario of a grocery shopping experience, in which consumers are forced to make trade-offs decisions between costs, quality, and personal preferences.

Two video scripts were prepared and submitted to the Technical Advisory Panel, as well as numerous reviewers from HCFA, for comment. These comments were reviewed and included as deemed appropriate by the HCFA Project Officer and project team. The video was then recorded in a real supermarket, using age appropriate actors.<sup>3</sup>

### **3.1.2 Medicare and Medicaid HMO Handbooks**

Given the apparent lack of consumer knowledge about managed care, the growing use of managed care options for both Medicare and Medicaid populations, and the importance placed by focus group respondents on publications that they could share with family and friends and refer to over time, we decided to develop prototype written materials to better explain managed care and its appropriate use. Although there are a number of structurally different managed care options available (e.g., health maintenance organizations or HMOs, Preferred Provider Organizations or PPOs, and Point of Service Plans or POS), the prototypes focus on HMOs. The written materials explain performance measures in more depth than the videos, and also provide examples of how to use them.

Based on the focus group and case study findings, we believed that these materials should be provided in written format to allow consumers to review them on an as-needed basis. Names and telephone numbers of references are provided for persons seeking additional information.

Draft versions of the printed handbooks were submitted to numerous HCFA staff and our Technical Advisory Panel for review and comment. The HCFA Project Officer and the research team reviewed these comments and recommendations and incorporated them into the materials as deemed appropriate. In attempting to include many of the comments received, we were faced throughout with the need to make trade-offs. One of the most common and difficult trade-offs we faced was the need to keep the materials “user-friendly,” while also addressing reviewers’ concerns that the materials should be technically correct and comprehensive, which typically makes the materials more complex.

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<sup>3</sup> Copies of the Medicare and Medicaid Videos may be attained from HCFA.

### 3.1.3 Medicare Options Materials for Pre-Medicare Beneficiaries

The final prototype we prepared was directed mainly at persons about to become eligible for Medicare, although it is also applicable for Medicare beneficiaries considering changes in supplemental insurance coverage. People in this age group (60-64) were eager for information. In our focus groups, we found that they were particularly uninformed about what Medicare covers, how it works, and what options are available to supplement Medicare. In exploring their preferences for information, it became apparent that they were not only interested in the factual information about options, but also wanted information that could help them make direct comparisons and trade-offs. Some people, for example, brought to the focus groups carefully hand-written comparison charts they had developed in their own attempts to make plan comparisons. Based on these observations, we decided that a prototype framework for systematically comparing different supplemental insurance options would be useful. Although existing resources for current Medicare beneficiaries may be applicable in the pre-Medicare population, very limited, if any, information is targeted specifically at this age group. Because the health insurance decisions that must be made upon turning age 65 are so different from those of younger persons who are not covered by Medicare, we felt that development of a separate handbook for those age 60-64 was warranted. The handbook provides a brief overview of Medicare, but focuses on outlining the different public, individually purchased private, and employer-sponsored group supplemental insurance options.

We did not develop a companion video to accompany the Pre-Medicare beneficiary handbook. Instead, the handbook, called *Medicare Options: Information for New Medicare Beneficiaries*, contains interactive worksheets that help people assess the trade-offs between the different supplemental options (e.g., Medigap versus a Medicare HMO), select one of the options, and select a specific health plan within that option category (e.g., AARP Medigap plan F).

It is expected that pre- and current Medicare beneficiaries will find both the Medicare Options handbook and the Medicare HMO handbook useful, because they intentionally complement each other. For example, the Medicare HMO handbook provides HMO performance data; the Medicare Options handbook does not, but it provides a worksheet for choosing among the whole range of options. Thus, if an individual decides by reviewing the Options handbook that he prefers a Medicare HMO, he can consult the Medicare HMO handbook for plan-level performance data. Both handbooks refer readers to HCFA's published materials such as the *Guide to Health Insurance for People with Medicare* and *Your Medicare Handbook*. They also refer users to the Medicare Information, Counseling, and Assistance (ICA) programs for free objective personal assistance with decision making. In fact, several references to these counseling services were added throughout the Options handbook to make it easier for users to obtain personal advice and information. Many beneficiaries will require personalized, face-to-face or telephone assistance.

### **3.2 What is New in the Materials Developed?**

The materials were designed to address several areas of unmet need expressed by consumers. Focus group data indicated consumers are not well educated about, nor very interested in, performance measurement. We believed this stemmed, in part, from a lack of available information on how to use these data for making plan decisions. To address this apparent shortfall, a primary objective of the materials was to educate consumers on how to make more appropriate and informed use of performance data. Both clinical and satisfaction ratings were used in addition to basic structural information common to most existing materials. The materials were designed to educate consumers about how these data reflect health plan performance. For example, they include explanations about what the measures mean, how to interpret “high” versus “low” numbers, and how to interpret large versus small differences.

The materials also were designed to inform consumers about choosing among HMOs. Most of the materials we reviewed in our case studies focused on presenting the benefits and costs of various plans but failed to provide general guidelines for the appropriate selection and effective use of HMOs. The prototype materials we designed are innovative in that they provide a process whereby consumers can determine which plan is most appropriate for them.

The third, and possibly most innovative, contribution of these materials is the attempt to provide a systematic algorithm for comparing traditional fee-for-service and managed Medicare options in a written format. Almost all persons approaching age 65 face a different set of health insurance decisions than ever before. Most will have to compare alternatives and weigh them against needs, preferences, and constraints. Yet our focus groups revealed that they often have little idea about what comparisons need to be made and how to go about making them in an organized manner. Our case studies and review of existing materials found no published protocol or algorithm to assist beneficiaries in organizing their comparisons. This finding was expected because the concepts that need to be conveyed are so complex and the “optimal” approach varies by individual according to knowledge and cognitive style. Several efforts are underway to develop computer algorithms that can take individual variation in style and preferences into account more easily than written material. But because written materials are so important to this population, the handbook for persons about to become eligible for Medicare presented an excellent opportunity to design a prototype written algorithm.

### **3.3 What the Materials Were Not Intended to Do**

The materials we developed for this project were not intended to replace the *Guide to Health Insurance for People with Medicare*, *Your Medicare Handbook*, specific plan guides, or numerous other resources developed for Medicare beneficiaries or Medicaid enrollees. Rather, these materials are intended for use in conjunction with, and as a complement, these resources. Similarly, the materials are not designed to replace the Medicare ICA counselors or Medicaid enrollment counselors. We believe that, ideally, these materials could be used by the counselors working with clients, and

as reference materials to send home with the clients for ongoing review as needed. In short, these materials are not intended to stand alone.

The materials were not intended to apply to all the possible users. The Medicare video and handbooks were developed for the aged Medicare population and the Medicaid video and handbook was developed for the AFDC (Aid to Families in Dependent Children) Medicaid population facing mandatory HMO enrollment. The special needs of selected disabled groups were generally not considered in developing these materials. Because of the diversity of needs among different special populations, the HCFA Project Officer, with concurrence from the remainder of the research team, decided that addressing the specific needs of all special needs populations was beyond the scope of this particular project. We recommend that further work be conducted to tailor the kinds of choice issues presented, as well as presentation media used, to address the information and presentation needs of the disabled and other special needs groups that we were unable to address. We encourage recruiting members from these populations for additional focus groups to determine the most appropriate information media and approaches and, subsequently, to develop appropriate prototypes that address the special consumer needs and preferences of these groups.

Our materials were developed for geographic regions with at least a moderate level of managed care penetration. Parts of the materials (e.g., the educational materials on performance measures) would not be helpful to individuals with only choices among fee-for-service plans, thus, modifications would be required. More basic explanatory information on managed care may be required as managed care begins to penetrate into new regions.

The eight performance measures used in each of the handbooks are only place holders and are not intended to represent our "recommended" measures. Very early in the project, the HCFA Project Officer, with concurrence from the research team, decided that determining the precise measures to include was beyond the scope of this project. Other projects, such as the Consumer Assessments of Health Plans Study (CAHPS), are currently addressing more specifically the measures that should be presented to beneficiaries.

Finally, these handbooks are prototypes. Because they are designed to compare specific HMOs and Medigap insurers, individual versions must be developed for each locale in which they are used. Statements and data in these prototypes should be tailored as closely as possible to the specific rules, choices, and data that exist in each locale.



## Chapter 4: Testing and Adapting the Materials

### 4.1 Cognitive Testing Methodology

Once drafts of each set of the materials were prepared and reviewed by our Technical Advisory Panel, we subjected them to rigorous cognitive testing. Cognitive testing methodology is used to investigate how people react to, interpret, and use prototype materials. The methodology entails a set of interview techniques for investigating consumers' thought processes as they gather information, explore their options, and make decisions. Some examples of the kinds of thought processes that may be involved in using information materials to make a health care decision include comprehension and interpretation, memory recall, comparison, evaluation, and selection or choice. The goal of our cognitive testing research was to identify ways to revise the prototype materials to make them easier to use and more helpful for consumers.

Our cognitive testing addressed four general areas:

- **Materials content:** Do the materials contain information that is relevant to health care consumers? Is the information sufficient? Is the information complete? Do the materials contain information that seems extraneous to consumers?
- **Comprehension:** Do consumers understand the information provided? Do they understand the information as intended?
- **Navigation:** How easily do consumers work through the materials? Do the materials fit together in ways that make sense to consumers? Do the materials help consumers identify the information they want? Do the materials help consumers interpret the information they find?
- **Decision Processes:** Do consumers understand the health care choice task that faces them? Do they recognize the roles of risk, costs, and utilities?

Within each of these four general areas, we identified more specific cognitive research issues and selected cognitive testing methods for addressing them. Testing procedures also were tailored to the unique aspects of the materials as well as the target populations. We developed a "think-aloud" interview protocol for exploring issues related to material content and decision making. In the "think-aloud" protocol, respondents reviewed the materials and described what they thought about as they used the materials to make a choice and evaluate options. We also had respondents consider different vignettes as they used the materials to make choices and evaluate options for the character in the vignette. Feature rating tasks were also used where consumers rate how important the various pieces of information were to their health care decision process. An "observation and debriefing" protocol also was developed for examining comprehension and navigation. In the observation series of interviews,

participants were given a pretest of their knowledge and then were observed as they read sections of the materials. Interviewers coded various aspects of their behavior and then gave a posttest for comprehension after they completed their review. For half of the participants we used the observational protocol and for the other half we used the think-aloud format. Both interviews included a conjoint task<sup>4</sup> in addition to the cognitive testing tasks.

The first round of cognitive testing was conducted in Portland, Oregon, and the Maryland suburbs around Washington, DC. These areas provided geographic diversity, but, more importantly, also had a moderate penetration of managed care. Testing interviews were conducted with:

- 44 Medicaid enrollees;
- 44 Medicare beneficiaries; and
- 15 Pre-Medicare beneficiaries (ages 60-64).

The first round of cognitive testing produced several major recommendations for changes to the draft materials as developed. These issues are summarized in detail in the first cognitive testing report (RTI, 1996). Based on the results and recommendations from the first round of cognitive testing, significant revisions and stylistic modifications were made to the draft materials. The second round of cognitive testing (contained in Appendix B), which focused on the written materials, was limited to fewer participants with the exception of the Medicare Options handbook. The second round of testing included:

- 9 Medicaid enrollees;
- 9 Medicare beneficiaries; and
- 24 Pre-Medicare beneficiaries.

The Medicare Options handbook was tested with the greatest number of subjects because these materials underwent the most significant revisions following the first round of testing.

The second round of testing was conducted in the Washington, DC metropolitan area only. As in the first round of testing, the revised drafts of the prototype materials were tested in terms of content, comprehension, navigation, and the overall decision processes participants were pursuing while using the materials. Our results also contained an analysis of picture and color preferences and perceived overall utility.

The third and fourth rounds of cognitive testing focused exclusively on the Medicare Options handbook as it continued to evolve. The third round included 12 interviews with participants recruited from the Washington, DC metropolitan area.

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<sup>4</sup> For more information on this procedure and the results, please see Wood et al. (1996). We have not included results from the conjoint testing because of the limited number of subjects used. We do suggest that based on our testing, conjoint analysis has methodological potential and warrants further study.

Participants were recruited from a variety of sources including the local ICA program, area senior housing facilities, and referrals from previous testing rounds. To assess the final booklet version, the fourth round of testing used a small group format, which included a group of five lower educational levels (defined as high school education or less) participants and a group of seven with a higher educational level (defined as at least some college) participants. The lower educational level was held in the Raleigh/Durham, North Carolina area and the higher educational level was held in Washington, DC. In round four, participants reviewed the handbook and completed the worksheet, then participated in a discussion about them. Before leaving, participants completed a short survey about the handbook. In all rounds of testing, we focused on recruiting a mix of participants with respect to race, gender, education, and HMO experience. In total, 51 cognitive testing interviews and 2 small group discussions were used to evaluate the Medicare Options handbook.

## **4.2 Cognitive Testing Results**

We have extracted the most relevant results and “lessons learned” from all four rounds of cognitive testing and discuss them in the following sections according to target population and type of material.<sup>5</sup> Appendix A contains the complete cognitive testing reports for Rounds 2-4 and depicts changes in the materials based on our empirical testing results.

### **4.2.1 Medicaid Materials**

#### **4.2.1.1 Medicaid HMO Video**

Overall, the Medicaid enrollees liked the video and perceived it as “user-friendly.”<sup>6</sup> Most reported that the videotape was easy to understand and watch. Several participants remarked that likening grocery shopping to shopping for health care seemed appropriate to them. There were no reports of difficulties understanding terminology used in the videotape. Some participants complained that the performance measure charts were difficult to read, although this may have been a result of the small screens on the portable VCR players used in the field. The beneficiaries seemed to respond favorably to “people like them” discussing the issues.

One of the most significant drawbacks to videos is the difficulties encountered when modifications are needed. For example, through our cognitive testing activities for other materials, we learned beneficiaries were confused by the term “quality indicators,” so we made the decision to use the term “performance measures,” which

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<sup>5</sup>We have not included cognitive testing results for Round 1 because the materials changed dramatically from Round 1 testing to Round 2, driven largely the testing results from Round 1.

<sup>6</sup> Because of the significant amount of material to be tested, we did not have adequate time to test the video as extensively as we would have liked. We felt it was important to keep the testing to less than two hours and made the decision in the testing design phase to place the first priority on testing the written materials as these were the most complex.

tested better. Making this same change to the charts shown in the video to illustrate different quality measures would have been relatively simple. However, making these changes to the script would have required reenacting several scenes. We were unable to make these changes due to funding constraints. In hindsight, we believe it would have been better to produce the video after the handbook had undergone at least one round of cognitive testing.

#### **4.2.1.2 Medicaid HMO Handbook**

##### **Lessons Learned from the First Round of Cognitive Testing**

***Need to Provide Educational Context.*** The first version of the Medicaid HMO handbook lacked sufficient introductory text. Several participants failed to understand that the text and graphical comparison charts reflected four health plans from which they could choose. For instance, several participants selected “managed care” when asked to choose a single plan, apparently failing to recognize that all four plans described were managed care plans. As a result, we developed introductory instructions and a better overview that described the choice task and how to find information about the specific health plans available. We also developed a general orientation to help consumers see the relationship between managed care in general and the specific managed care health plans described in the handbook. The first few pages of the handbook were modified to provide an overview of the handbook, its assumptions, and its organization to increase consumers’ motivation for using it.

***Ordering of Materials.*** Textual and graphical comparison charts had been placed in the middle of the brochure, ahead of most of the text used to explain them. Since there was a strong tendency on the part of enrollees to review the materials page by page, they reviewed the charts prior to the text describing how to interpret them. Therefore, we moved the comparison charts to the end of the handbook in the next version.

***Need for Navigational Aids.*** Enrollees also had difficulty using the comparison charts developed in the first draft set of materials. Therefore, we modified the graphs to use blocks of color and other graphical aids to make the comparison chart easier to read. We also had included a total of twelve performance measures. This number seemed to overwhelm participants, with a few indicating they would probably skip over most of the graphs if they were using the materials on their own. Based on these results, we reduced the number of measures to eight in the next draft of the materials.

***Performance Measure Comprehension.*** Enrollees seemed to recognize that performance measures convey relatively complex information. Some thought these indicators were “health messages” about what informed consumers have to do to receive the care they need. As with the focus groups, several participants suggested that the indicators (e.g., immunization rates and low birth weight rates) reflect plan member behavior rather than the quality of care received through the plan. These interpretations often led to testing responses in the opposite direction of what might be expected. For example, one participant commented that the plan with a high number of

low birth weight babies probably did a very good job at taking care of these babies because they had experience in this area. As another example, participants interpreted plan differences in late-stage cancer diagnosis as an indication that the plans had different numbers of patients with cancer.

The Medicaid test population used several strategies to simplify the choice task. One common strategy was selecting a single plan early in the information review process based on factors having most relevance for that individual's personal circumstances. Individuals using this approach would then selectively use other information to justify their initial choice. Based on these findings, we revised the performance measure sections to include more text that clearly explained how to interpret the measures and what the differences meant for plan members.

***Other Handbook References.*** Medicaid beneficiaries seemed to like the magazine format of the handbook and appreciated the photographs. Some misunderstood the consumer satisfaction measures; their confusion stemmed in part failure to understand the survey sampling processes and representativeness. Participants indicated they were very interested in information about plan review by outside agencies such as the National Committee on Quality Assurance (NCQA). Several participants wanted more detail regarding NCQA (e.g., was it a government agency, an independent agency, or a consumer group). We modified our description accordingly for the next version of the handbook.

### **Lessons Learned from the Second Round of Cognitive Testing**

***Usefulness of Handbook.*** Participants unanimously agreed they would like to have something like the Medicaid HMO Handbook if they were choosing an HMO, primarily because they thought it would make choosing a plan easier. When asked what part of the handbook they found most useful, the most commonly mentioned section was the "Performance Measure Graphs," mentioned by five participants. When asked what parts of the booklet were least helpful to them, many (6) participants said that everything was important.

***Understanding Terminology.*** Seven of the nine testing participants referred to a primary care provider (PCP) in some way as their "own doctor" or "the doctor who sees you first for all kinds of care." Although most of the Medicaid beneficiaries understood the term PCP, we elected to use the term "primary care doctor."

After reading the "What about Emergencies?" section, about half (5) of the participants were able to distinguish between "urgent care" and "emergency care" based on their reading of the handbook. Two participants distinguished between the two types of care but in the wrong direction, describing urgent care as more serious than emergency care. The other two participants said they were unable to separate the two types of care because for both you need care "right then and there." Based on these findings, we made further attempts to revise the information in this section.

**Comprehension of Performance Measures.** In the second round of testing we modified the protocol to test how well Medicaid enrollees were able to use the performance measures. In developing the handbook, we had intentionally manipulated the performance measure graphics so that one HMO was clearly superior to the others based on the data. Our test results suggested the changes in the layout (i.e., placing this information at the end of the handbook, improved graphics, and, perhaps most important, reducing the number of indicators from twelve to eight) enhanced the beneficiaries' ability to make plan comparisons. After reviewing the materials, all nine participants selected "Mednet," the HMO that performed the best on all eight performance measures. The ability to use the comparative information was further tested through the use of two vignettes. Seven of the eight respondents receiving the first vignette identified the appropriate plan for the story character; six of eight responded appropriately to the second vignette.

Participants were specifically asked what part of the handbook they relied on most to choose their plan. Almost all (8) referred to either the performance measure graphs or to both the graphs and the comparison chart (5). Seven of the nine described the graphs as easy to use. Based on the heavy reliance on the graphs, we added a section at the end of the booklet to remind people to look back at both the charts and the graphs, rather than relying only on the graphs (which, in the current layout, are at the end).

Based on the tendency to treat small plan differences as meaningful, we added an explanation of the concept of "margin of error" to the Medicaid handbook in the performance measure section. In developing our materials, we were unable to locate a satisfactory explanation of this concept that we thought was simple, accurate, and appropriate for our target populations. After much deliberation, we inserted a sentence explaining to users that differences of less than 10% may not be meaningful. In addition, we provided examples of when differences were and were not statistically significant. We had not included this explanation prior to the second round of cognitive testing so this text remains untested. Explanation of statistical differences remains, in our opinion, is an area warranting a great deal of additional investigation.

**Performance Measure Preferences.** When asked to choose the performance measures they considered most important, "pediatric immunizations" and "preventable hospitalizations for asthma" were the indicators most often mentioned, followed closely by "member satisfaction with doctors' communication." The indicator mentioned most frequently as least relevant was "prenatal care." However, we recommend avoiding utilization measures that relate to ambulatory sensitive conditions, such as hospitalizations for asthma. Lower hospitalization rates for ambulatory sensitive conditions unambiguously reflect higher quality in a fee-for-service setting. Under capitation, however, quality as a cause for low hospitalization rates is confounded with the HMO's incentive to limit utilization for financial reasons.

**Comparison Chart Preferences.** Most (7) of the beneficiaries thought the plan comparison chart was "very useful." When asked which aspect of the chart was most useful to them, responses varied, with the most frequently mentioned feature being the

“special features” section which indicates whether doctors’ offices are on the bus routes and availability of weekend hours. The least helpful piece of information was the section on languages used. This may, however, be important for those with limited English ability, as was shown in recent AHCPR focus groups.

Six of the nine respondents reported that knowing the NCQA rating of a plan made no difference to them in choosing a plan. In-depth probing suggested this information actually confused participants. One person, for example, believed it represented the status of the doctors in the plan, rather than the plan itself, remarking

“How can you go to a doctor who has a one-year accreditation?  
I wouldn’t go to that one!”

In the end, we deleted the section of the comparison chart showing each plan’s NCQA rating, as there are multiple accreditation bodies, and we did not want the handbooks to appear to promote one over another.

We also uncovered a potential concern that should be considered in developing all future materials. Several of the Medicaid enrollees reported that they assumed that a plan’s inclusion in the handbook meant that the plan had already met certain standards of excellence. A couple of participants expressed it this way,

“I figure if the plan was listed in this booklet, it already has a  
quality rating.”

“I’m quite sure if they didn’t approve it, they wouldn’t be  
offered.”

Thus, while it is important to communicate information to consumers about the choices available, it also is important to indicate whether or not these plans have been preliminarily screened.

#### **4.2.2 Medicare Materials**

##### **4.2.2.1 Medicare HMO Video**

Beneficiaries generally reported that the videotape was easy to understand and easy to watch. Several participants noted that the comparisons between grocery shopping and shopping for health care seemed appropriate to them. There were no reports of difficulties understanding terminology used in the videotape. A few participants indicated the video “talked down” to them in a few places. Some understood that the videotape’s tone may be necessary for a general Medicare audience with different types and levels of experiences.

We experienced some of the same difficulties discussed earlier concerning the Medicare HMO video. First, the cost of producing the video was not trivial. Second, edits after the fact were very limited. Because a “realistic” setting was used, substantial



edits in the script could only be made through reshooting, potentially doubling the production costs. Edits made to the inserted graphics were more manageable. Again, we believe it would have been beneficial to produce the video as the final set of materials, drawing upon the lessons learned through the cognitive testing of the other materials. Additionally, we would have allocated a greater percentage of the budget and schedule for reshooting as appropriate.

#### **4.2.2.2 Medicare HMO Handbook**

##### **Lessons Learned from the First Round of Cognitive Testing**

**Comprehension and Navigation.** Testing results showed that numerous changes to the materials were necessary. Although most beneficiaries recognized they were being asked to choose among competing HMOs, several failed to recognize that the text and graphical comparison charts were providing comparative information on four HMOs. Several beneficiaries were confused about how Medicare HMOs compare to standard Medicare and Medigap coverage. Thus, we added an introductory section on the different fee-for-service and managed care supplemental options available to Medicare beneficiaries to help orient beneficiaries. Some beneficiaries were suspicious about HMOs and perceived that the initial materials seemed to promote them. In response, we edited the handbook to present a more balanced perspective. Further, in the original version of our HMO handbook, in our efforts to layer materials, we placed the performance measure graphs in the brochure as a centerfold. Unfortunately, this layout placed the graphs ahead of most of the text explaining how to interpret them, causing participants to have difficulty understanding them. In addition, in the observation-only interviews, several participants failed to look at this information. In the revised materials, the graphs were placed at the back of the brochure. Participants apparently recognized that selected indicators conveyed relatively complex information, but some interpreted these as “health messages” about what *informed* consumers had to do to receive the care they need.

##### **Lessons Learned from the Second Round of Cognitive Testing**

As previously indicated, the first round of cognitive testing provided very insightful and valuable data for revising the prototype materials. The second round of testing re-evaluated the content, navigation, comprehension, and consumer decision processes for these revised materials.

**Overall Usefulness.** Beneficiaries participating in testing unanimously agreed they would like to have a booklet like the Medicare HMO Handbook if they were choosing an HMO. Reasons offered include that it

- is concise
- is a resource that can be revisited
- focuses on questions one should ask before choosing an HMO and is broken down into understandable sections



- is clear about its purpose from the beginning
- provides a helpful comparison chart.

After reading the entire handbook, beneficiaries were asked which plan they would pick if they had to choose one. All nine were able to pick a plan, although no plan's data were constructed to make it the "best" choice as with the Medicaid Handbook (as had been the case for the Medicaid testing). Participants generally focused on the comparison chart information to make their choices.

The most useful part of the handbook according to participants was the comparison chart. The least helpful section was "Voices about Choices," which was subsequently deleted from the final version of the handbook.

***Comprehension and Navigation.*** After the first round of testing, substantial changes were made to improve navigation. A great deal of effort was expended on better linking the various sections, improving the flow from one section to another. Our results for the second round of testing suggested the handbook worked much more effectively as a whole, with only minor changes needed in specific sections.

***Understanding Terminology.*** Seven of the nine beneficiaries for the second round of cognitive testing were confused or felt others would be confused by the term HMO. The handbook also included an explanation of risk versus cost HMOs and the implications of these different managed care options on out-of-pocket costs. Eight of the participants understood the concept of point-of-service plan but did not understand how it compared to risk versus cost options. As a result of this confusion, we attempted to clarify these concepts in the final version of the handbook by adding a comparison chart on page 5.

We specifically tested beneficiaries' preferences and "lay" understanding of the terms "provider" and "doctor." There was almost unanimous preference for the term doctor. When asked by the cognitive tester whether "provider" means a "person, a place, or both," almost every participant said "provider" refers to a person rather than a place and many indicated that provider could include health care professionals other than a doctor. One beneficiary saw Medicare as the "provider," denoting a provider of insurance rather than care. Based on these testing results, we elected to use the term "doctor and other health care professionals" for provider in the final version of the Medicare Managed Care handbook.

Most beneficiaries had heard the term "primary care provider" (PCP) before reading the handbook. Similar to the Medicaid testing results, the majority referred to PCP as their doctor or the doctor who sees you first for care. One participant saw Medicare as the primary provider and the insurance company as the secondary provider. To avoid confusion, we elected to use "primary care doctor" in the final version of the handbook since participants used this term to refer to the main person who gives them care.

### 4.2.3 Medicare Options Handbook

In this section, we summarize the findings from the cognitive testing interviews with 60-64 year-olds, which examined the Medicare Options handbook and worksheets.

#### **Lessons Learned from the First and Second Round of Cognitive Testing:** **General Issues**

**Overall Usefulness.** In general, the Medicare Options handbook was well received. Responses were more positive during the second round of testing after significant revisions had been made in response to round one findings. Participants indicated that they would use the handbook if it were sent to them. Some participants mentioned the relevance of the booklet to their particular age group. That is, while the booklet would not have interested them a couple of years ago, it does now because they are nearing the time when they need to begin thinking about Medicare. The sections most commonly mentioned by participants as being most useful were: “Step 4: The Benefits and Cost of Medigap Insurance” and “Understanding Your Medicare Options,” which contains pie chart graphics depicting how different sources (e.g., Medicare, supplemental insurance, and individual out-of-pocket costs) contribute to the payment of health care services.

**Comprehension and Navigation.** Testing results showed that the handbook was effective at assisting people in choosing an option as measured by the fact that most participants were able to make a choice between the options when asked to do so. Participants were evenly split between a Medigap plan and a Medicare HMO, with a limited number selecting an employer plan. Because participants tended to prefer the more comprehensive benefit packages (especially in the case of Medigap)—which are in reality purchased by only a small portion of beneficiaries because of their high cost—it seemed necessary to stress the importance of making trade-offs between what a person would like and what is affordable. Following the benefits charts on pages 16 and 19, we added text emphasizing the need to make realistic trade-offs between the “benefits you want and what you can afford.”

Based on testing results in both rounds, additional navigational guidance was added throughout the handbook. In particular, respondents indicated that they needed further clarification regarding how to read the charts and use the worksheets. More introductory text was needed at the outset of the worksheet section to inform readers of the process they are about to undertake. Specifically, we explained that there is a section of the worksheet for each supplemental option. And, within each option, readers have an opportunity to review the covered benefits offered by each plan and calculate the total costs for the plans of interest to them. Finally, the summary worksheet will ask them to review the options and the individual plans one more time before making a choice. Persons who had already made their choice by this time were told to “opt out” of this task.

## **Lessons Learned from the First and Second Rounds of Cognitive Testing: Specific Sections**

**Definitions/Examples.** Because some participants mentioned that certain terms used in the handbook (e.g., “Medicare approved charge,” “durable medical equipment,” and “home health care”) were unclear to them, we defined these terms in the glossary or added examples when mentioned in the text to enhance comprehension. We felt that, although these terms confused people, they needed to be included to provide an accurate description of Medicare and supplemental insurance coverage.

### ***Recognizing the Different Options and Comprehending the Pie Charts.***

Because our focus groups indicated at least some new beneficiaries Medicare assumed Medicare would cover all their health care needs, we developed “pie charts” to depict the proportion of health care costs Medicare in fact does cover. Most cognitive testing participants recognized that the pie charts<sup>7</sup> graphically depict how different financial sources contribute to the payment of health care services. In developing this section of the handbook, extensive care was taken to show this relationship objectively and accurately. This was a challenge because the distribution of payment is largely a function of the specific health plan and the health status and utilization level of the individual. Participants were generally in favor of using pie charts to show this relationship.

The proportion of the pie chart on page 4 reflecting how much Medicare pays for health care expenditures is based on published data. On average, Medicare pays for 45 percent of total health care expenditures for persons age 65 and over (PPRC, 1996),<sup>8</sup> with the balance of the costs being the responsibility of the beneficiary. Since these costs may be extensive, most individuals purchase some type of supplemental insurance if they do not qualify for Medicaid. One purpose of the pie chart on page 4 was to show how costs are divided among Medicare and the beneficiary. Another purpose was to explain that, even with supplemental insurance, beneficiaries may still face out-of-pocket costs. The proportion of costs not covered by Medicare (55 percent) is divided evenly in the pie chart (between the supplemental insurer and the beneficiary) for simplicity, but it is not empirically based.

We explicitly decided *not* to show the numerical proportions of each pie piece, to discourage readers from thinking that this was *exactly* how expenses would be divided among payment sources. Despite this, some cognitive testing respondents still made this incorrect assumption. Thus, we added text to page 5 stating that: *The exact amount you pay will vary based on the option you choose. It depends on: (1) the type of plan you pick, (2) the benefits it covers, and (3) the health care services you use.* We also informed readers that completing the worksheets would give them an even

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<sup>7</sup> In an earlier version of the handbook, there were multiple pie charts.

<sup>8</sup> This proportion factors in payment for long-term care nursing home expenditures, which usually are not covered by Medicare.

better idea of how much they could expect to pay out-of-pocket annually. We emphasized, however, that even these calculations should be considered estimates.

After the second round of testing, we reduced the number of pie charts in response to outside reviewer comments received on the materials. In general, there was concern that having multiple pie charts gave the incorrect impression that each supplemental option covered the same amount of expenses (because the portion of the pies reflecting supplemental insurance was consistent across the options).

#### ***Understanding the Different Fee-for-Service and Managed Care Options.***

Immediately following the introductory section containing the pie charts, the handbook provides an overview of each supplemental insurance option as well as “Medicare only” coverage. One full page is dedicated to Medigap and another to Medicare HMOs because of the amount of information that needs to be conveyed about these two options. We learned that readers were confused between Medicare Part A and Part B and Medigap plans A through J. Minor changes were made in the Medigap page to alleviate this problem. When tested, respondents indicated that the Medigap and Medicare HMO sections were “overloaded” with information and were in need of more user-friendly layout. In response, we added as much “white space” as possible, used several text boxes in the margins to diversify how the material is presented, and removed all photos.

Cognitive testing participants also had some difficulty understanding how Medicare SELECT plans differ from standard Medigap plans, how point-of-service plans differ from Medicare HMOs, and how SELECT plans differ from point-of-service HMOs. As a result, we added a new page (page 9) to the Options handbook containing a chart summarizing the key differences between the Medicare/Medigap and Medicare HMO options across the following dimensions: choice of providers, access to specialty care, geographic availability of services, benefits, and premiums. The goal was to provide a quick visual overview of some of the key factors considered when choosing between options.

Based on comments received from outside reviewers, we revised the sections of the handbook addressing employer-sponsored supplemental insurance (pages 6 and 11). The version tested in Round Two of the interviews did not clearly specify that whether Medicare is the primary or secondary payer depends on several factors (e.g., whether the beneficiary or his/her spouse is still working and the size of the employer). Therefore, the text was changed to address this. Finally, to address some of the commonly asked questions raised during cognitive testing, we added information about how one supplemental policy is generally sufficient.

#### ***Self-Defined Health Care “User Status” and Out-of-Pocket Expenses.***

A unique aspect of the Medicare Options handbook is its ability to help people calculate an annual estimate of out-of-pocket health care expenses they may incur with different types of supplemental options. To do this, readers are asked to first classify themselves as a “high,” “medium,” or “low” user of services. A description of each “user status” level is provided to enable readers to decide how they should categorize

themselves. The descriptions show how much health care services on average people in each user category consume per year in terms of doctor visits, hospitalizations, and prescription drugs. In response to reviewer comments, we added more detailed information (average number of home health visits per year) to help readers classify themselves as a medium or high user, because the utilization levels of the two groups were similar. We reminded readers that health care utilization is generally positively correlated with age. Because we found that beneficiaries tended to assign themselves on the basis of their current health status, rather than anticipating future needs for care, we added a statement encouraging them to consider their future needs when assigning themselves to a category. We also recommended that those who are uncertain about their health care use should choose the higher level.

This approach builds on the work of Sofaer, Kenney and Davidson (1992), who computed out-of-pocket expense estimates for Medicare beneficiaries with 13 different medical conditions under several different Medigap and Medicare HMO options available in Los Angeles before OBRA 1990 Standardization. Our cognitive research suggested that beneficiaries would not identify themselves with one of these groups if they did not have the condition. Thus, we classified persons in the more general categories of high, medium, or low users of health care. All cognitive interview participants were easily able to assign themselves to one of these categories.

Beneficiaries employ the user-level status category later in the worksheet to estimate their expected out-of-pocket expenses under different insurance options. Most beneficiaries understood that these estimates were averages and that their actual experience would differ. However, we still felt it necessary to add the statement that the out-of-pocket cost data are only estimates.

**Benefit Comparison Charts.** Response to the benefit comparison charts varied, in part because of individual preferences for the amount of information desired, with some participants wanting more detail and others responding that the charts were overloaded. Stating only what benefits were covered was not adequate for some; they wanted the chart to state explicitly what benefits *they* will need to pay for themselves. We concurred that the benefits chart in the *Guide to Health Insurance for People with Medicare* did this well because it includes a specific column of information explaining what “You Pay.” Thus, we modified our Medicare Only chart as such and it tested well. Another example of the variation across preferences is that some readers felt that the “Reviewing Medigap Benefits” and “Reviewing Medicare HMO Benefits” charts were redundant with their respective benefit comparison charts. These charts were intended to provide another approach to reviewing benefits by encouraging people to think about which services are important to them. We decided to keep the review charts in the handbook since they did appeal to some respondents.

Accurately listing what each supplemental plan covers in a limited amount of space presented many challenges. In the end, we found it best to use very brief but consistent descriptions, referring readers to the *Guide* for more detail if needed. We also made sure the benefit comparison chart in each option section was consistent in terms of the order in which the benefits were listed. In response to comments received

from both outside reviewers and during cognitive testing, we added benefit information about dental services and long-term care to each benefit chart.

**Cost Comparison Charts.** The greatest challenge testing participants faced when using the Medigap and Medicare HMO cost comparison charts was manipulating figures. Most attributed this difficulty to having instructions that were not clear enough. Following each round of testing, changes were made to the instructions based on the specific problems expressed by participants. One important change was to move the rows in the charts so that data which needed to be summed together (premiums and out-of-pocket costs) were adjacent.

The charts were simplified in other ways as well. For example, in an earlier version of the Medigap cost chart, data showing the range of plan premiums were included so beneficiaries could see at a glance which plans fall within their budget. In the end, we decided that despite the fact that this information might be useful, it seemed to add unnecessary confusion to the chart and was deleted. Beneficiaries must consult their state premium guide for this information.

**Summary Chart.** The summary chart on page 21 underwent a significant metamorphosis throughout the project. As previously mentioned, the purpose of the chart is to allow readers to reconsider all the options before making a choice. It enables readers to look at plan-specific data (total cost, benefits, doctor choice) across the options in one location. This, however, requires that readers must move their calculations and ratings from previous pages to the summary chart. This posed difficulty for some and not for others. Again, the instructions were simplified as much as possible and extraneous information was removed from the chart. The chart leaves space in rows five and six for readers to write in individual comments regarding “things I like” and “things I don’t like” to round out their decision making.

At the conclusion of the page, readers are congratulated on completing the exercise. They are encouraged to seek additional information or assistance in their decision making process.

### **Lessons Learned from the Third and Fourth Rounds of Cognitive Testing:** **General Issues**

**Overall Response to the Handbook.** All 24 round three and four testing participants agreed that they would use the Medicare Options handbook if it were sent to them at home, citing that it was useful in helping them to make a health plan choice. Participants rated both the handbook and the worksheet section positively as relatively easy to use and causing limited frustration and confusion. In general, participants felt that the handbook would “get them started,” but that additional resources would be needed in order to come to a decision. Several participants said they would like to have a counselor available to whom they could address questions.

**Differences in Comprehension and Navigation According to Education Level.** Overall, results from the higher and lower educated groups in round four were



very comparable across nearly all measures. This finding suggests that the handbook may be simple enough to be understood by those with at least a high school education, but larger scale testing would be needed to have greater confidence in this result. Some variation in comprehension existed *within* the lower educated group; a couple of the participants clearly mastered the information better than others. Regardless of educational status, Medicare beneficiaries may require assistance to fully understand the material and are likely to seek this assistance and/or more information before making a health plan decision.

### **Lessons Learned from the Third and Fourth Rounds of Cognitive Testing: Specific Sections**

***Comprehension of the Pie Chart Message.*** Participants were able to explain correctly the intended purpose of the pie chart section, stating in their own words that the pie chart represents three different sources of payment for health care services. When asked in round three, 11 out of 12 participants acknowledged that Medicare does not cover all health care costs; only about a third of this group also noted that all health care costs may not be covered even with a supplement. Minor changes were made after round three to pages 4 and 5 to enhance readability.

***Medigap Open Enrollment Period.*** In the round four survey, participants recalled reading about the Medigap open enrollment period. When asked to describe it briefly, participants generally noted correctly that it is a one-time only period once you enroll in Medicare when you cannot be turned down by a plan regardless of your medical history. This seemed to be an improvement over the level of comprehension expressed in round three during which only 8 of 12 participants noted that the period is only six months long and only half (6) noted that it is only a one-time occurrence.

***Differences Between FFS and Managed Care Options.*** When asked to describe the main differences when FFS and managed care options in round three, every participant noted that the premium costs differ. Many also acknowledged the restriction of choice of doctors, but fewer noted other key aspects of HMOs. Again in round four, participants most commonly mentioned doctor choice/selection and price, correctly seeing the two as a trade-off. However, a few of the lesser educated participants were not able to articulate the difference well. They also found page nine, which contains a comparison chart of the different types of FFS and managed care plans for Medicare beneficiaries, to be confusing. We expect that a chart containing that amount of information will require more time than was available in the testing situation to be more fully understood.

***Selecting User Level Status.*** Nine participants in the third round and 11 participants in the fourth round of testing circled a user level status on page 12. In each group, only two participants said they had some difficulty choosing a single level. Nearly all choose either a low or medium user level.

***Cost, Benefit, and Summary Charts.*** In round three, participants were asked to interpret the benefit charts. Most gave correct responses, suggesting they were able

to understand the charts. In round three, nine participants completed the Medigap cost worksheet and seven completed the Medicare HMO cost worksheet. Following Round Three, we changed the cost charts and the summary chart to a landscape format so that the instructions for each row could be placed directly to the left side of each respective row. Row instructions were further simplified. By round four, virtually every participant filled out all the cells of the cost worksheets. Of the 11 participants in round three who completed the summary worksheet, eight said it was “very useful.” All 12 participants were able to complete the summary chart in round four.

#### **4.2.4 Summary of Cognitive Testing Results**

Results from our final rounds of testing suggest that the revised versions of the materials are substantially more user-friendly and effective at communicating complex choice information than the predecessor drafts. We were pleased at the degree to which users reported they found the materials helpful, as well as the extent to which they could successfully use the information to choose a plan. There are still some areas that still need to be addressed before widespread use of the materials. For example, our new text designed to help consumers estimate statistical differences will need to be tested, both in terms of consumers’ ability to understand it and the appropriateness of the size of the difference we used.

#### **4.2.5 Revising the Materials for Future Use**

It is also important to recognize that the data on which the prototypes are based will need to be modified and tailored to the specific region in which they would be used. Obviously, the specific plans will need to reflect plans available in a given region. In addition, as Medicare and Medicaid guidelines continue to evolve, these changes will need to be incorporated. The intent in designing those particular prototypes was to develop user-friendly prototypes which could be easily modified to meet the needs of multiple users. In some instances, the user may choose to only incorporate specific sections. To facilitate the process of adapting the materials to the specific requirements of a given situation, the print files have been given to HCFA and the print specifications follow in Exhibit 4.



## **Exhibit 4. Print/Design Specifications for “Choosing Your Medicaid Health Plan”**

- Computer Format:** Macintosh
- Programs:** QuarkXPress version 3.31 Page Layout Program  
Photoshop version 4.0  
Aldus Freehand version 7.0
- Fonts:** Adobe Stone Sans (for cover and subhead text)  
Benguiat (for headings in text and chart)  
Adobe Goudy (for body and chart text)
- Photos:** The cover photo and photos on pages 1,2,4,5,6 and 7 were purchased from Photodisc for use in this handbook. Photos on pages 3 and 10 were borrowed from a personal collection and can only be used in this publication.
- Ink Colors:** Black and PMS 485 (red)  
The screened boxes on pages 2, 4, 6-13, and the back cover are created with an overprint of a 10% black box over a 10% PMS 485 box which then produces a third ‘tan’ color.
- Please note:** The fonts and photos used in this handbook are provided on the disc, however, their use is restricted to printing of the handbooks for this project (HCFA contract #500-94-0048). They can be purchased for use in other projects through Adobe (fonts) and Photodisc (photos).

#### **Exhibit 4. Print/Design Specifications for “Choosing A Medicare HMO” (continued)**

<b>Computer Format:</b>	Macintosh
<b>Programs:</b>	QuarkXPress version 3.31 Page Layout Program Photoshop version 4.0 Aldus Freehand version 7.0
<b>Fonts:</b>	Adobe Caxton (for cover, subhead, body and chart text) Helvetica (for cover)
<b>Photos:</b>	The cover photo and photos on pages 1,3,4,and 12 were purchased from Photodisc for use in this handbook. Photos on pages 2 and 6-9 were borrowed from a personal collection and can only be used in this publication.
<b>Texture:</b>	Paper texture used on the cover and charts on pages 13-15 is a Photoshop tiff file and included on the disc.
<b>Ink Colors:</b>	Black and PMS 321 (teal blue)

**Please note:** The fonts and photos used in this handbook are provided on the disc, however, their use is restricted to printing of the handbooks for this project (HCFA contract #500-94-0048). They can be purchased for use in other projects through Adobe (fonts) and Photodisc (photos).

#### **Exhibit 4. Print/Design Specifications for “Medicare Options” (continued)**

<b>Computer Format:</b>	Macintosh
<b>Programs:</b>	QuarkXPress version 3.31 Page Layout Program Photoshop version 4.0 Aldus Freehand version 7.0
<b>Fonts:</b>	Adobe Stone Sans (for cover, subheads and chart text) Adobe Caxton (for body and chart text)
<b>Photos:</b>	Cover photo was purchased from Photodisc for use in this handbook.
<b>Ink Colors:</b>	PMS 492 (red) and PMS 540 (dark blue)

**Please note:** The fonts and photos used in this handbook are provided on the disc, however, their use is restricted to printing of the handbooks for this project (HCFA contract #500-94-0048). They can be purchased for use in other projects through Adobe (fonts) and Photodisc (photos).

## Chapter 5: Data Issues

Data issues will no doubt be one of the most significant issues for developing materials to guide health care choices and decisionmaking. This chapter discusses two types of data used in the prototype handbooks: health plan performance data, which are used in the Medicare and Medicaid HMO handbooks, and estimates of average out-of-pocket expenses incurred by high, medium, and low users of health care, which are used in the Medicare Options handbook. The discussion of performance measures addresses several important issues concerning the choice of measures and format for the prototypes and the availability and quality of performance data in general, which users of these prototypes should keep in mind when adapting them for practical applications. The discussion of out-of-pocket expense estimates describes the rationale for providing these data and the methods used to compute them.

### 5.1 Performance Measures

#### 5.1.1 Choice of Performance Measures

Measuring the performance of HMOs and similar network-based health plans is a new field and it is evolving rapidly. At the beginning of this project, in October 1994, there was no consensus about which measures were meaningful, how the data should be collected, and how they should be reported. Since then, the state-of-the-art has advanced significantly. The NCQA has developed HEDIS 3.0, which includes measures for both the privately and publicly insured (Medicare and Medicaid beneficiaries), and AHCPR's Consumer Assessments of Health Plans Study (CAHPS) has released initial versions of consumer assessment surveys for the Medicare and Medicaid populations. Despite this design work, however, there has been little implementation of performance measurement at the HMO level for the Medicare and Medicaid populations. Thus, these prototype handbooks were developed without specific sources of data to support them. The effect of this situation is that the measures included in the prototype handbooks are placeholders rather than specific recommendations. They were selected to include measures that we believe are relevant and meaningful to the Medicare and Medicaid populations, based on our cognitive research. However, it is not very useful to specify measures of individual variables or composite aggregations until we know what data will be available.

Each organization in each jurisdiction that uses a performance measurement tool will have to consider which measures from that tool should be reported. Given the emergence of CAHPS and HEDIS as the leading measurement tools, users of our prototype report formats may want to rely on the recommendations from those two sources regarding which performance measures to report. In choosing measures, they will have to address several important issues in addition to the basic question about which measures to present:

- **Medical records or survey-based consumer assessments?** Research has suggested that beneficiaries find records-based utilization measures, such as the percentage of current beneficiaries who receive selected services, less informative for their choice of health plan than survey-based

consumer assessments. Whether they are less relevant or simply less familiar and less well-understood remains to be determined. If the latter, it suggests that records-based utilization measures will become more valuable as beneficiaries become more familiar with them. Thus, our prototype reports include measures of both types.

- **Should utilization measures related to ambulatory sensitive conditions be included?**

Ambulatory sensitive conditions (ASCs) are those that should not usually result in hospitalization if they are treated appropriately in ambulatory care settings. Thus, low hospitalization rates for ASCs have been interpreted to indicate high quality care in health care delivery systems. Common examples include hospitalizations for diabetes, pneumonia, and pediatric asthma.

The use of ASC hospitalizations to represent quality is appropriate in a fee-for-service (FFS) system because providers benefit financially from high utilization rates. In capitated systems such as Medicare and Medicaid HMOs, however, the interpretation is not as clear. Providers in these systems benefit financially by discouraging hospitalizations. Thus, it is not clear if low ASC hospitalization rates reflect high quality care or barriers to access in response to financial incentives. Focus group participants recognized this ambiguity. To avoid confusion we recommend that ASC hospitalization rates not be included among performance measures for beneficiaries.

- **How many measures should be provided?** The question of which measures to include is complicated by a significant constraint on the number that can be provided and used effectively. There are obvious constraints concerning the overall burden and the cost associated with large reports, so there are real incentives to keep it small. More importantly, there are constraints on the cognitive ability of beneficiaries to interpret complex, unfamiliar data. The cognitive demands increase significantly with the number of measures, which can be a particularly significant problem for aged Medicare beneficiaries or Medicaid beneficiaries with less-than-average education.

It seems likely that beneficiaries' ability to interpret these measures correctly will improve with time and familiarity. The prototypes use few measures (eight) under the assumption that beneficiaries' interest in and ability to use them will increase with time and that more, and more complex, measures should be added in response to the demand for more information from beneficiaries.

- **Should the measures vary?** The limit on the number of measures that beneficiaries can use effectively means that choices will have to be made. One way to expand the number of measures that can be presented is to vary them over time. This strategy also minimizes the likelihood that the ability of a measure to discriminate among HMOs will decrease with time as HMOs focus their quality control efforts on measures that are reported to beneficiaries.

### 5.1.2 Presentation of Performance Measures

Our focus groups indicated that graphs were easier for beneficiaries to understand than tables. The Medicare and Medicaid HMO prototype handbooks both use vertical bar graphs that report a single number or percentage for each HMO. The graphs are preceded by two examples that explain to beneficiaries how they should be read. Next to each graph is a paragraph that explains the meaning of the measure, whether a higher or lower number is better, and, except for the excellent-to-poor ratings where we believe it is obvious, why a higher or lower number is better. These graphs worked well with both Medicare and Medicaid beneficiaries in cognitive testing. Beneficiaries were almost always able to identify the best-performing HMO on each measure.

For excellent-to-poor ratings, the bar represents the percentage reporting the two highest categories on the five-point scale, excellent and very good. Research by others has suggested that beneficiaries prefer to see the entire distribution included in the bar. This approach provides beneficiaries with much more information, but it also increases the cognitive burden of interpretation. In view of our concern about minimizing the cognitive burden of performance measures for Medicare and Medicaid beneficiaries, we have included only one component of the distribution in the bar graphs.

The graphs present data for four HMOs. The cognitive burden of making comparisons increases with the number of HMOs included in the graphs. The complexity and cost of design and production of the reports also increase with the number of HMOs, particularly if the number of HMOs exceeds the number of bars that can be included in a graph with sufficient font size on a single page. Users of these prototypes will have to adapt the graphs if more than four HMOs are being compared. Testing of graphs with data for more HMOs is a potential objective for future cognitive testing.

The placement of the performance measures in the handbook is also an important presentation issue. In these prototypes, the measures come before the descriptive information about covered services and premiums. For the nine Medicare beneficiaries in our final round of cognitive testing, we compared their statements about which of the performance measures were most valuable to them with how well their chosen HMO performed on those measures. Only a small number picked HMOs that performed best on the measures they said were most valuable. The beneficiaries reported that, in general, they found the performance measures useful, so we do not believe that they disregarded the information. Instead, they may have relied on the benefits and cost information more than on the performance measures. The benefits and cost information could be inherently more salient or it could have been more influential in this test because they were the last data the beneficiaries received before they made their choice. Future cognitive research on the presentation of performance measures should vary the order in which performance measures and descriptive benefits and cost information are placed in the handbooks to determine if placement is related to salience.

**Threats to Validity.** Performance measures are intended to discriminate among HMOs in a specific locale. Small differences between two HMOs can be attributed to error or bias of one kind or another rather than to meaningful differences. Even when a

difference is not attributable to error or bias, it may be so small that it has little practical or clinical meaning. Beneficiaries who participated in our focus groups were aware in general that error and bias can affect the validity of the reported differences. Thus, we concluded that it is important to provide them with some guidance about how error and bias might affect the results as part of the information we provide about interpreting the measures. Three potential threats to validity are discussed below.

- **Conflict of Interest.** Beneficiaries who participated in our focus groups were concerned that data collected by the HMOs being evaluated could be biased to reflect positively on the HMOs. Because of this concern, we recommend that data be collected by the Medicare program and state Medicaid programs, or that data collection be conducted by community-wide coalitions of purchasers, including employers and small business purchasing cooperatives as well as the Medicaid and Medicare programs. To assure beneficiaries that the performance measures were collected by an objective party, we included a statement that the measures were collected fairly and accurately. In cognitive testing, this statement seemed to be a sufficient assurance for beneficiaries. Although it is a very general statement, it can be used with any system of data collection. Once systems of data collection are established, the purchasers who adapt these prototypes to their locales should consider more specific statements about who collected the data and how they were obtained.
- **Selection Bias.** There is a general consensus that records-based performance measures of use and outcomes should be adjusted to reflect variation in need for health care among the enrolled populations of the HMOs being compared. The argument applies also to survey-based consumer assessments, although there is a significant counter-argument that unadjusted satisfaction measures are more relevant because health plans should satisfy members in the areas of access and communication regardless of their health status and need for care. The final decision about whether to adjust for risk depends very much on the data that are available in each local market and whether the performance measurement tools used in each market include data that are useful for adjustment.

An alternative to adjusting the aggregate population measures for risk selection is to report performance measures separately for high users of health care or persons with significant chronic illness. The way in which capitated health plans treat very ill beneficiaries is a potentially important indicator of performance for healthy persons as well as those who are ill because of the financial incentive to minimize services under capitation. However, separate estimates for high users cannot be made from survey data, and from medical records also if samples are used, unless the initial samples include a sufficiently large number of persons in this relatively small group. Thus, the decision to report separate measures for high users has serious implications for sampling design and the cost of collecting data. It also expands the number of measures being reported, which, as noted above, creates additional cognitive burden for persons who use the measures. We have not specified risk-adjusted measures or separate measures for high users in the prototypes because of these problems and

uncertainties. However, it is an important issue on which standards will continue to evolve. Local users who adapt these prototypes should pay attention to the recommendations of the designers of the performance measurement tools they use (e.g., CAHPS, HEDIS).

- **Sampling Error.** Survey-based performance measures, and, in many cases, records-based measures as well, are obtained from representative, probability samples. Thus, there is almost always sampling variance associated with each reported measure. In cognitive testing, we asked beneficiaries whether they perceived small differences between HMOs as meaningful and found that some do and others do not. We concluded that it is important to inform beneficiaries who are not familiar with the concept that small differences may not be meaningful and to provide guidance to all beneficiaries about which differences are not significant.

Sampling variance is a difficult concept to convey to persons who are not familiar with statistics. It is particularly difficult in this context because we have little space available and because the size of the confidence interval around each estimate will vary based on variation in sample size and the proportion reported. Sample sizes may vary by HMO and by the performance measure (e.g., some measures may be reported only for women and others for women and men combined). Given the space limitations, reporting separate confidence intervals for each measure is not feasible. We reviewed attempts in a few HMO performance reports and found them too technical. Thus, for the final prototypes, we have included a statement that the margin of error for each estimate is about 10 percent and provided an example of how two estimates less than 10 percent apart are probably not meaningfully different, but two others more than 10 percent apart probably are different. The margin of error approach is used often in the mass media when reporting public opinion survey data. Thus, we believe that it is the approach most likely to be recognized by Medicare and Medicaid beneficiaries.

The choice of 10 percent for the prototypes is arbitrary. The number used in actual applications must be derived from the performance measurement data. It should probably be an average (e.g., mean, median, mode) half-width 95 percent confidence interval for all the measures reported.

**Sponsorship of Data Collection and Reporting.** The responsibility for collecting and reporting data about Medicare HMOs could reside at the federal level, with HCFA or at the local level with community coalitions or Professional Review Organizations (PROs). The responsibility for Medicaid HMOs appears to reside with the states. But as yet there is no structure in place at any level to collect or report HMO performance measures. The most significant advance in this regard is simply the development of the CAHPS and HEDIS measurement tools for Medicare and Medicaid populations. The next most significant advance is HCFA's contract for a national survey of Medicare HMOs, using the Medicare CAHPS instrument. Several states (e.g. Florida, Oregon, Minnesota) have either collected performance measures from their Medicaid populations or are actively engaged in



planning for data collection, but they represent a minority of states. And, in some cases, performance data have been used for program management but have not been reported to beneficiaries facing a choice among HMOs.

HMOs are increasingly concerned about multiple requests for data from the Medicare and Medicaid programs, employers, and purchasing cooperatives. Because HMO performance reports must focus on the specific markets or locales in which HMO provider networks operate, a community-based data collection and reporting structure is very appealing. It would minimize the burden on HMOs and would provide for consistent sampling and data collection methods among all HMOs and beneficiary populations.

Developing these prototypes in the absence of a structure for data collection and reporting has been a challenge because there are so many unknowns. It will be important for users of these prototypes to modify them to reflect the actual sponsors and methods of data collection in their locales.

## **5.2 Market-Specific Variation of Cost and Benefit Data in the Prototypes**

In order to make the handbooks market-specific, selected benefit and cost data will need to be revised before using. In the Medicaid and Medicare HMO handbooks, HMO-specific premium and benefit cost information must be inserted into the comparison charts.

The worksheet in the *Medicare Options* handbook requires the most revisions. One area affected by market-specific variation is the Medigap section of the worksheets which was designed to be used in conjunction with a state-specific Medigap premium guide.<sup>9</sup> Another area that may require modification is the list of the standard benefits covered by the 10 Medigap plans approved as part of the Omnibus Budget Reconciliation Act of 1990 (OBRA 90). Because three states (Massachusetts, Minnesota, and Wisconsin) are exempt from requiring the 10 standard policies, developers in these state will need to revise the handbook to reflect their own standard policies. Another issue that may affect the Medigap benefit charts is the potential to sell standard plans with an innovative benefit as permitted under OBRA 90. Although few innovative benefits have been approved, they exist in some areas. Supplementary text may also be needed to explain these state- or market-specific nuances.

In every location, developers would need to insert market-specific HMO data that reflect the plans in their region. In regions where no HMOs exist, the handbook would require more extensive changes to account for this. However, given the rapid growth in the number of Medicare HMOs, this will become less of an issue.

On page 9, we provide a chart comparing the Medicare and Medigap option with Medicare HMOs across the following dimensions: choice of providers, access to speciality

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<sup>9</sup> Readers are told to obtain the premium guide before beginning the worksheet section. Such guides are currently available in at least 40 states. In states where no premium guide exists, consumers will need to contact individual insurance companies, agents, or brokers, to obtain plan-level premium data required to complete the cost worksheets.

care, and geographic availability of services, benefits, and premiums. Market-specific developers will need to insert the range of premiums available in their area. Similarly, on page 11, developers will need to insert the state's income eligibility level for Medicaid to assist readers in determining whether they might qualify as a Medicare/Medicaid dual eligible. Of course, each handbook will need to be periodically updated to reflect market changes (e.g., entry and exit of specific health plans, changes in the Medicare program, and other factors affected by health care reform).

### 5.3 Out-of-Pocket Expenses for Medicare Options

***Use of Out-of-Pocket Expenses in the Worksheet.*** The worksheets in the *Medicare Options* handbook include estimates of out-of-pocket expenses that beneficiaries would incur, on average, under each Medicare supplemental insurance plan and Medicare HMO described in the handbook. Our intent was to provide beneficiaries with a way to estimate their total expenses under each option, by adding their expected out-of-pocket costs to the premium for the specific products they are considering to arrive at a total expected expense for each competing benefit package. This information is important if beneficiaries are to be able to make informed benefit-cost comparisons.

It is very difficult to make this information understandable. The range of options available to Medicare beneficiaries is quite broad, especially for new beneficiaries who have been insured through employment-related groups and never had to select from more than two or three options at most, or who have rarely had health insurance. Beneficiaries are usually confused about the scope of benefits offered by, and the rules for using, increasingly complex managed care plans. Adding cost information significantly expands the cognitive burden.

***Computation of Out-of-Pocket Expenses.*** The computation of expected out-of-pocket expenses had four steps, which are summarized below but are explained in greater detail in Appendix A. The first step, based on the method used by Garfinkel, Riley, and Iannacchione (1988) to estimate the characteristics of high-cost users of health care, used the 1987 National Medical Expenditure Survey (NMES) data to identify Medicare beneficiaries who used less than their proportional share of total medical expenditures (low users), about their share of total expenditures (medium users), and more than their share of total expenditures (high users).

The second step involved computing the mean number of health services of each type reported in NMES (e.g., hospital stays, physician visits, prescriptions filled) for each of the three groups of beneficiaries. These utilization profiles are included in the handbook to assist beneficiaries in assigning themselves to a category.

The third step involved computing the mean expenditure for each type of service in each of the three expense categories. The fourth step, based in general on the method used by Sofaer, Kenney, and Davidson (1992), involved the application of either Medicare and Medigap benefits or Medicare HMO benefits to the mean expenditures for each type of service to estimate the residual out-of-pocket expenditure after the various insurance options pay benefits. Our methodology is described in more detail in Appendix A.

If these out-of-pocket expense estimates are to be useful they will have to be available to local publishers of the *Medicare Options* handbook. In the absence of a dissemination plan, we cannot prescribe a specific approach, but there are several important considerations. The out-of-pocket expense estimates are affected by four basic factors: (1) definition of the high, medium, and low user categories; (2) the mean expenditures by type of service within each user category; (3) medical price inflation; and (4) the application of Medigap and Medicare HMO benefits to those means. Some of these elements will vary annually but others will not.

The first two elements, definition of user categories and mean expenditures by type of service within category, are based on the 1987 National Medical Expenditure Survey. We used NMES as the source of data because it provides detailed information about expenditures by type of service and it provides data about services that are covered by Medigap policies and Medicare HMOs but are not covered by Medicare. The only alternative source of data, Medicare claims data, do not include data on services not covered by Medicare, especially prescription drugs, and so are not useful for computing residual out-of-pocket expenses after Medigap and Medicare HMO payments. The periodic nationwide surveys of medical expenditures conducted by the Agency for Health Care Policy and Research are the only source of data with sufficient detail for this purpose. Because these surveys are conducted only about once each decade, annual data on the underlying distributions used to define high-, medium-, and low-cost users and the mean expenditures by type of service are not available. Thus, it is not possible to vary these two components of the out-of-pocket expense estimates annually. However, it would be desirable to recompute the use categories and expenditure estimates whenever the data for a new national expenditure survey are released.

Medical prices increase annually, but the estimates can be easily adjusted by applying a medical price inflator. For the prototype, we adjusted the 1987 NMES estimates to 1995 using the medical component of the Consumer Price Index.

Because of standardization of Medigap plans, Medigap benefits will not vary annually or by locale. Thus, the set of out-of-pocket expense estimates for the 10 standard Medigap plans provided in the prototype can be used by all local publishers (except in the three waiver states, where residual expenses would have to be computed separately for their local plans). Greater precision could be obtained by computing regional estimates of mean expenditures by type of service and user category, but that seems unnecessary, particularly until this worksheet becomes widely used. Medicare HMO benefits, however, vary by HMO, making the task of computing the residual out-of-pocket expense much more complex. Separate computations would have to be made for each HMO that offers unique benefits.

Although the method of computing residual out-of-pocket expenses is complex, it could be done locally. Nevertheless, to assure methodological consistency, minimize local burden, and increase the likelihood that the estimates would be used by local publishers, HCFA should produce the estimates annually for Medigap plans A through J, for the plans in the three waiver states, and for each Medicare HMO. The computations would be most complex whenever data from a new national medical expenditure survey become available,

but they would be relatively simple in other years when only medical price inflation and HMO benefit changes have to be considered.

## **Chapter 6.0: Lessons Learned from Materials Development and Testing**

In this final chapter, we provide a brief overview of the major lessons learned from the project, highlighting those learned during the materials development and testing phases.

### **6.1 Education and Information Needs of Consumers**

Our data suggest that many eligible individuals have limited knowledge of the Medicare and Medicaid programs. In fact, some Medicare and Medicaid beneficiaries do not even realize that they have choices to make about how they receive their health care services. These choices can significantly affect the quality of, access to, and cost of care they receive, and are becoming increasingly important with the movement toward managed care plans that lock beneficiaries in for a defined period of time. Without beneficiaries having knowledge of the basic health insurance concepts and the major trade-offs associated with different plan choices, successfully conveying information about quality of care differences across health plans poses significant challenges. Further, our data suggest that the choice process is complex and is most appropriately made through the capacity to synthesize multiple variables within a personal frame of reference. Thus, the process of providing beneficiaries with information must be coupled with an educational component to provide sufficient context and background for understanding the material before beginning the process of plan by plan comparisons. The beneficiaries in our focus groups and cognitive testing interviews expressed a keen interest in both the educational and comparative components of the health plan materials we developed and many indicated that they would use such materials if they were made available to them.

### **6.2 Format and Content of Materials**

In order for beneficiaries to reap the benefits of health plan materials, the materials must be designed carefully and contain the appropriate blend of information. One of the greatest challenges in developing comparative health plan materials is identifying the appropriate level of detail to provide without overwhelming or confusing the reader. Difficult decisions must be made about what material will be included and excluded and how it will be arranged in order to minimize cognitive burden and maximize comprehension.

"Layering" information is one approach that can help to address the dilemma about the amount of information to present to consumers. Layering involves presenting the same information in two or three different ways, each with progressively more detail. The more detailed version of the information might be presented in an appendix or a separate piece of materials. The approach can appease both types of users: those who want a minimal amount of information and those who want more detail. One potential pitfall of layering, however, is the possibility that the detailed layer and the summary layer might convey inconsistent or even conflicting messages to the reader. This may be a problem for performance measures, in particular, if aggregate measures suggest there is no difference between health plans but more disaggregated layers of data indicate there is a difference. Thus, the use of layering must take the potential for conflicting messages into account.

The use of navigational aids such as introductory instructions or section overviews were essential for guiding the user through either printed or electronic materials and we strongly recommend that these be included in all consumer materials. These often included visual aids such as a finger with a string tied around it to remind the reader that definitions for boldfaced terms could be found in the glossary of the handbook. Although simple, these aids can help consumers gather information and come to a decision.

We also learned that consumers favored having some form of an algorithm for making the health plan decision. The worksheet in the *Medicare Options* handbook was specifically designed with this purpose in mind. It identifies a step by step process and guides the user through the decision process. This approach breaks down the cognitive task into a set of smaller, more manageable tasks, but does not exclude any important features that should be considered in the decision.

Providing beneficiaries with all the information they need to choose a health plan usually means increasing the amount and complexity of information presented. This increase threatens to provide beneficiaries with more information than they can manage. The trade-off between "information overload" and providing useful information encourages designers to compensate for necessarily complex or extensive sections of the material by simplifying in other places. We learned from cognitive testing, however, that including material that in itself might be unnecessary can have beneficial consequences, as long as testing indicates that it does not overload users. The most striking example of this approach concerned the benefits comparison charts for Medigap plans and HMOs in the Medicare Options book.

Because the benefits comparison for all 10 standard Medigap plans completely uses both facing pages in the book, HMOs appear in a separate chart. Thus, beneficiaries who try to compare Medigap overall to HMOs overall have to flip back and forth, which is a significant navigation problem according to focus groups and cognitive tests. The testing revealed several techniques to make this comparison easier, some of which add material that might otherwise be considered unnecessary:

- Use the same matrix format for both charts: health plans in columns and benefits in rows.
- Use the same benefits categories (i.e., rows) in both charts, even if the information does not vary within one of the charts. For example, dental care is not covered by any of the standard Medigap plans, but limited dental benefits are provided by some HMOs. Excluding dental care from the Medigap chart because coverage does not vary would be an obvious way to simplify a complex, dense chart. But the presence of dental care in the HMO chart will cause beneficiaries to wonder about how Medigap plans treat dental benefits, creating confusion. Through cognitive testing, we determined that any increased confusion that might result from keeping an "unnecessary" category is more than offset by the decrease that comes from making the comparison between Medigap plans and HMOs easier.

- The information about benefits covered by each Medigap plan should be the sum of coverage from both Medicare and the Medigap plan. The main reason for taking this approach is that HMOs provide a single set of benefits through one insurer. It is very difficult for beneficiaries to compare this single set of integrated benefits with two sets if Medicare benefits and Medigap benefits are presented separately. This is another example of how making the comparison chart more complex simplifies the beneficiary's task.
- Including benefits categories that do not vary for either HMOs or Medigap plans in the comparison charts can be a very effective way to convey information about services that are never covered. Focus groups and cognitive testing confirmed that Medicare beneficiaries, especially new or about-to-be new beneficiaries, are confused about what Medicare covers. Many think that they will have few if any out-of-pocket expenses after they become eligible for Medicare. Although long-term care is not covered by Medicare, Medigap plans, or HMOs, we included it in both the Medigap and the HMO comparison charts because it makes it clear to beneficiaries that it is important to consider long-term care and that none of these options covers it. The long-term care category contributes no information about the coverage provided by any of the options, so it could easily be dropped to simplify the charts. But it provides information about the equally important issue of what is not covered.

These design strategies increase the complexity and density of the comparison charts and the information they include. However, through cognitive testing, we determined that the additional information was valuable to beneficiaries in clarifying their choices and did not exceed the amount of information that they could manage.

Ultimately, the contents of the comparative plan materials will be driven by what reliable and valid data are available for use at the time of development. Significant progress is being made with respect to the refinement of both survey-based and clinical records-based performance measures, both in terms of how they should be defined and collected. Health plan materials will need to evolve as the research community makes advances in these areas.

Regardless of what information is included in the materials, an overall goal should be education of the consumer. Simply providing information to consumers about their health plan choices will not be sufficient. Consumers need to be educated about how the Medicaid, Medicare, or other health insurance systems “work” and what that means to them as an individual. One specific area where consumers certainly need educational assistance is with interpretation of performance measures.

### **6.3 Evaluation of Consumer Materials**

This project highlighted the importance of consumer testing throughout the process of materials development. Although focus groups were helpful in the initial phases of the project for exploring consumers' preferences for information and presentation styles, we consider cognitive testing to be the definitive methodology for empirically assessing the



usefulness of materials once developed. Despite the fact that the materials had been reviewed by relevant staff from HCFA as well as our technical advisory panel prior to testing, the cognitive testing phase revealed points for misinterpretation or problems in use by consumers that would have diminished the value of the materials if not addressed. The one-to-one interactive nature of cognitive testing allowed us to systematically assess input from each individual participant through observing the consumer using the materials, asking specific questions about comprehension and preferences, and exploring areas of confusion. These advantages contrast to the necessity of relying on the "group level" of performance as is the case for focus groups. We encourage the empirical evaluation of materials through a systematic, consumer-based methodology like cognitive testing as an integral part of future materials development activities.

#### **6.4 Dissemination of Consumer Materials and the Role of Intermediaries**

Numerous decisions need to be made about the most effective and cost-efficient methods for disseminating consumer health plan materials. We learned that different types of consumers prefer to receive materials in different ways, but many favored a combination of written materials that they could review on their own in conjunction with a counselor to whom they could address questions either over the telephone or in person. Several different types of intermediaries - enrollment brokers, benefit managers, ICA counselors - could potentially play a role in the information dissemination process. Regardless of who does become involved, some long-range planning and training of staff will be essential.

The Balanced Budget Act of 1997 calls for the dissemination of information about health plan choices to all new and current Medicare beneficiaries beginning in 1998. Specifically, it requires that the Secretary of Health and Human Services disseminate general information about benefits, election procedures, beneficiary rights, HMOs, Medigap, MSAs, and SELECT, and the potential for contract termination, as well as comparative information about benefits, cost sharing, networks, coverage protocols for emergency care, premiums, service area, and quality and performance (if available). This groundbreaking legislation will certainly initiate the development and distribution of information to Medicare beneficiaries, but many questions remain unanswered about the process for carrying out the legislative mandate. In addition, several state Medicaid programs that have turned to mandatory managed care programs are showing interest in distributing information to beneficiaries who must choose between competing plans in their area.

This project represents one of the pioneering efforts to develop comparative health plan information for consumers. It stands among the earliest attempts to identify consumer preferences for information content and presentation of health care choices and then to actually test the effectiveness of the materials for consumer consumption and use. Clearly, the field has evolved since the project began in late 1994. Our hope is that the products and approaches developed through this project will serve as a foundation for future research to guide consumers in making well-informed, appropriate choices for health care coverage.



## References

- 1987 National Medical Expenditure Survey: Public Use Tape 18 Household Survey—Expenditures, Sources of Payment and Population Data for 1987.
- Health Care Financing Administration. (1995). *The Medicare Handbook*.
- Agency for Health Care Policy and Research. (1995, August). *Consumer Survey Information in a Reforming Health Care System*. AHCPR Pub. No. 95-0083. Summary of a conference sponsored by AHCPR and the Robert Wood Johnson Foundation, September 28-29, 1994. Rockville, MD.
- Bureau of Labor Statistics, Department of Labor, December 1995 CPI Monthly News Release.
- Bumbauer, L., McCormack, L., et al. (1997, January). Information Needs for Consumer Choice: Second Round Cognitive Test Report. Prepared for the Health Care Financing Administration under Contract No. 500-94-0048. Baltimore, MD.
- Burrus [Braddy], B., Orenstein, D., Brownstein, N., & Cook, T.J. (1992, April). PATCH: An Example of Community Empowerment. *Health Journal of Health Education*. 23(3), 174-178.
- Garfinkel, S., Riley, and Iannacchione, R. (1998, Summer). High Cost Users of Medical Care. *Health Care Financing Review*, 9(4).
- Gibbs, D.A. (1995, October). Information Needs for Consumer Choice: Final Focus Group Report. Prepared for the Health Care Financing Administration under Contract No. 500-94-0048. Baltimore, MD.
- Gibbs, D.A., Sangl, J.A., & Burrus, B.B. (1996, Fall). Consumer Perspectives on Information Needs for Health Plan Choice. *Health Care Financing Review*. 18:1, 55-73.
- Guide to Health Insurance for People with Medicare. Department of Health and Human Services.
- Harris-Kojetin, L., Burrus, B., Garfinkel, S., et al. (1997, August). Information Needs for Consumer Choice: Third Round Cognitive Test Report. Prepared for the Health Care Financing Administration under Contract No. 500-94-0048. Baltimore, MD.
- Harris-Kojetin, L., McCormack, L. (1997, October). Information Needs for Consumer Choice: Fourth Round Testing Memo: *Medicare Options Booklet*. Prepared for the Health Care Financing Administration under Contract No. 500-94-0048. Baltimore, MD.

- Hibbard, J.H., & Jewett, J.J. (1995, October). Using Report Cards to Inform and Empower: Consumer Understanding of Quality-of-Care Information. Paper presented at the Annual Meeting of the American Public Health Association. San Diego, Ca.
- McCormack, L., Schnaier, J., Garfinkel, S., et al. (1996). "Consumer Information Development & Use." (Fall, 1996). *HCFA Review*, 1996, Vol. 18, No. 1.
- Mechanic, D. (1989, Spring). Commentary: Consumer Choice Among Health Insurance Options. *Health Affairs*, 139-148.
- National Committee on Quality Assurance: NCQA. (1995). *Consumer Information Project: Focus Group Report*
- Schnaier, J.A., Garfinkel, S.A., Gibbs, D.A., et al. (1995, December). Information Needs for Consumer Choice: Case Study Report. Prepared for the Health Care Financing Administration under Contract No. 500-94-0048. Baltimore, MD. December 1995.
- Sofaer et al. (1990). Helping Medicare Beneficiaries Choose Insurance: The Illness Episode Approach. *The Gerontologist*.
- Sofaer, S., Kenney, E., & Davidson, B. (1992, December). The Effect of the Illness Episode Approach on Medicare Beneficiaries' Health Insurance Decisions. *Health Services Research*, 27(5):671-693.
- U.S. General Accounting Office. (1995). Health Care: Employers and Individual Consumers Want Additional Information on Quality. Pub. No. GAO/HDHS-95-201. Washington, DC.



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